A SURVEY OF INTERNAL AUDITORS RISK MANAGEMENT PRACTICES IN THE BANKING INDUSTRY IN KENYA

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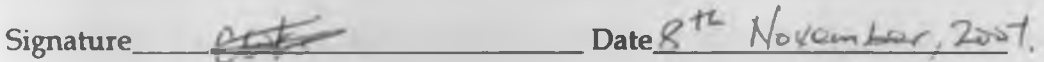
A research project submitted in partial fulfillment for the award of Degree of Master in Business Administration (MBA); School of Business, University of Nairobi

2007

DECLARATION

This project is my original work and has not been submitted for a degree in any other university.



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This project has been submitted for examination with my approval as university supervisor.

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DEDICATION

To my wife Jane Njeri and our children Joy Wanjiru and Peris Wambui for their love and patience.

Then, to my late parents, Kibara Mundia and Peris Wambui, God rest their souls in eternal peace.

Lastly is to my immediate brothers and sisters.

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All heads of internal audit departments of the respondents' bank also deserve special mention. Your patience and diligence in filling my lengthy questionnaire enabled me to complete this research project.

LIST OF ABBREVIATIONS

ARM	:	Audit Risk Model
BASEL	:	Bank for International Settlements
BCCI	:	Bank of Credit and Commerce International
CBK	:	Central Bank of Kenya
ERM	:	Enterprise Risk Management
IAPC	:	International Auditing Practices Committee
ICPAK	:	Institute Of Certified Public Accountants
IFAC	:	International Federation of Accountants
IIA	:	Institute of Internal Auditors
IAD	:	Internal Audit Department
ISA	:	International Standards on Auditing
OECD	:	Organization for Economic Co-Operation and Development
RBA	:	Risk Based Audit
RMD	:	Risk Management Department.

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ABSTRACT

Internal audit departments (IAD) have played a major role in their organizations enterprise risk management (ERM) activities since the birth of internal audit. A paradigm shift is however being witnessed as most institutions are now establishing risk management departments (RMD) to drive the ERM process, while internal audit departments are now being required to act as referees in the whole ERM process.

This study sought to establish banking internal auditors' perception of their distinct role in the bank wide ERM process, and whether there is any conflict between internal audit and risk management departments being established to take over the ERM process. Bank internal auditors risk assessment practices in Kenya were also probed. To achieve the objectives set, a survey of involving all heads of internal audit departments in the banking industry in Kenya was conducted. Data analysis was done, and with response rate of 52%, it was concluded that the outcome of the study fairly represented the banking industry internal auditors' practices and perception of risk management.

The findings indicated that seven banks out of twenty one (33%) had not established a separate risk management department. It also emerged that only 14% of the internal auditors could clearly list the distinct role of IAD and those of RMD. For institutions both departments, a conflict was already brewing between IAD and RMD in 29% of the institutions. The conflict centered mainly on lack of clarity on the distinct roles to be played by those two departments in the whole ERM process. The ideal core roles of internal audit department in risk management process as identified in the literature review are; giving assurance on risk management processes, giving assurances that risks are evaluated correctly, evaluating the risk management processes, evaluating the reporting of key risks and finally, reviewing the management of key risks. The roles of risk management department in summary include, creating or recommending enterprise wide risk policies and procedures, developing and implementing methodology for measuring risks across the institution in a consistent and uniform manner. To reduce the conflict noted in the

study between the two departments, the two departments' distinct roles should be agreed upon and documented in the form of an approved board charter. RMD should take charge of the whole ERM process while the IAD department should only act as a referee, assuring the boar and the management that the ERM process is on course.

The study found that, most banks in Kenya were in process of drafting the ERM process and strategies. This was consistent with developments all over the world as noted by Greuning (2003), who asserted that organizations were at different stages of implementing ERM process. On internal auditors risk assessment, it emerged that the practice by internal auditors was quite varied. This was attributed to the fact that risk management is an emerging discipline whose concepts and philosophy has not be fully appreciated by all the stakeholders in the banking industry including internal auditors. The study recommends that more workshops and seminars facilitated by the industry regulator, Central Bank of Kenya (CBK) and Kenya Bankers Association (KBA), would go along way in ensuring that the risk management strategy is understood by all stakeholders, including internal auditors.

DECLARATION

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1.0 INTRODUCTION

1.1 BACKGROUND

Auditing is a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and the established criteria and communicating the results to the interested users (American Accounting Association, 2006).

The phrase "systematic process" implies that there should be a well planned approach for conducting an audit. This plan involves objectively obtaining and evaluating evidence related to assertions about economic actions and events, captured in financial statements. According to International Auditing Practices Committee (IAPC), financial statements are assertions by management, explicit or otherwise, that are embodied in the financial statements (IFAC 1995). These assertions have been categorized by IAPC as; existence, rights and obligations, occurrence, completeness, presentation and disclosure, measurement, and valuation.

Accounting and auditing are interrelated. Messier (2003) has traced these historical interrelationships to 500BC in Greece. Early means of accounting was in oral forms and the review (audit) was also oral by the accounting official giving an account of his deeds with possible verification with a witness. The word auditing was therefore derived from a Latin word "audire" meaning "to hear" (Pratt, 1983). The birth of modern accounting and auditing however occurred during the industrial revolution, when corporations needed to raise capital to finance expansion. Corporation started issuing stock and bonds to the public and borrowed from financial institutions (Messier, 2003). Dale (2005) identifies the Hamburg Company incorporated in 1296 in England as the first joint stock company in the world. The growth of the modern corporation led to the presence of the

absentee owners (stockholders) and use of professional managers who ran the corporation on a day to day basis. In this setting, managers served as agents for the stockholders (principals) and fulfilled a stewardship function by managing the corporation assets.

Accounting and auditing play an important role in this principal-agent relationship (Messier, 2003). The agency relationship between the owner and the manager produces a natural conflict of interest because of the information asymmetry that exists between the managers and the absentee owners. Due to information asymmetry, managers have more information about the true position and results of operations of the entity than the absentee owners. If both parties seek to maximize their own self interest, it is likely that the managers will not act in the best interest of the owners. To reduce the conflict, there is need for some monitoring of the managers through reporting (accounting), or by appointment of a third party (auditor) to monitor the manager. Power (1997) describes audit as a form of checking which is demanded when agents expose principals to moral hazards. Audit therefore, is a risk reduction practice which benefits the principal because it inhibits the value reducing actions by agents.

American Accounting Association (2006) has identified four conditions that create a demand for auditing; first is the Conflict of interest between information preparers (managers), and users (owners, creditors and other third party groups) who do not manage the organizations, that can result to biased information; second, information can have a substantial economic consequence to the decision maker; third, expertise is often required for information preparation, verification and analysis, and lastly, users are frequently prevented from directly assessing the quality of information.

Auditing has traditionally been segmented into external and internal auditing. External auditing objectives and scope are laid down by statutes in most countries. In Kenya, the

Accountant Act (Cap 571) stipulates the qualification, objectives and scope for external auditors while carrying out their mandate. It further spells out the contents of the reports generated from the exercise.

Internal auditing is an internal function of a corporation established by the management to strengthen corporate governance. Because internal auditors spend all their time with one company their knowledge about the company's operations and internal controls is much greater than that of external auditors. Internal auditing is an independent, objective, assurance and consulting activity designed to add value and improve on an organizations operations. It helps an organization accomplish it's objectives by using a systematic and disciplined approach to evaluate and improve the effectiveness of risk management, control and governance process (Institute of Internal Auditors of America (11A, 2005).

Alens (1997) argues that the role of the internal auditor has increased dramatically in the past several years primarily because of the increased size and complexity of many corporations. As the role of the internal auditor expands there has been a change of orientation of what he is supposed to do. The internal auditor is moving from concentrating on operational functionality to giving a more strategic input. This has put pressure on the internal auditor to develop new types of skills including business analysis, strategic management, decision making as well as human relationship skills.

Internal audit activity provides assurance that internal controls are in place and that they are adequate to mitigate the risks; organizational goals and objectives are met and that corporate governance processes are effective and efficient. Robertson (1998) argues that, many internal auditors are shifting their focus from control based auditing to risk based auditing (RBA). In RBA, internal auditors have the responsibility to study management risk assessment and to make a risk assessment of their own.

In the past the concept of risk assessment in audit has been used to describe the Audit Risk Model (ARM). The model as codified by International Standards on Auditing (ISA) 400 is based on the idea that an auditor's detection risk is influenced by inherent risk and the control risk. As International Standards on Auditing have been accepted by a large number of accountancy bodies then, this Audit Risk Model is being used in the audits of most companies.

In recent times the ARM has come under severe criticism, especially from the Securities and Exchange Commission (SEC) of the United States as being a reengineered approach which cannot effectively meet the need to address the current focus in strategic management (Blokdijk, 2004).It has rightly been argued that the current ARM approach does not help auditors deal with business risks faced by their clients. The problem is more acute for the internal auditors who are supposed to assure the management on the implementation of the risk management strategy in their organizations. In a fully Risk Based Audit Strategy the auditors must have an understanding of the most important business risks and focus on the effectiveness of the risk management process (Marco, 2003).

Lore (2000) defines "risk" as a potential for loss underlying the value of an investment. Robertson (1998) argues that, the word "risk" means the probability that an event or action may adversely affect an organization and its particular activities. The common usage of the word "risk" connotes a possibility of failure or loss.

The dictum in finance says that "the greater the risk, the higher the return". Therefore risk can be seen both as an opportunity and as a threat; Opportunity, because the most risky businesses are also highly profitable. Risk is a threat because it includes a possibility of losing part or the whole of your investment. Risk cannot however be done away with. Venkat (2000) argues that most business managers would agree that it is

neither possible nor desirable to completely eliminate risk from the business proposition. What is required is an understanding of all risks that arises from a particular business and managing those risks effectively.

Risk management means, increasing the likelihood of success, reducing the possibility of failure and limiting the uncertainty of the overall financial performance. Best (2000) argues that the purpose of risk management is to prevent an institution from suffering unacceptable loss. He goes on to explain that "unacceptable loss" is one which either causes an institution to fail or materially damages its corporate position. Risk assessment according to Marco (2003) is the process of identifying, measuring and prioritizing risk.

All businesses are constantly battling with a multiplicity of risks. Banking in particular is a very risky business, the changing environment in which banks find themselves present major opportunities for banks but also entails complex variable risk that challenges traditional approaches to bank management (Greuning 2003).

Banks must monitor the ever changing micro- and macro-economic environments to identify the risks therein and find ways of managing these risks. Developing economies of the world; Kenya included, face more uncertainties than their developed counterparts. Banking business in developing worlds therefore faces more risks. Failure to manage risks effectively in the respective banks leads to bank failures. One bank failure may have a contagion effect on the other banks, leading to a systematic failure of the whole banking industry in a country or even a whole region as witnessed during the Asian Bank Crisis (1997-1998). Kenya has had its share of bank failures. Obiero (2002) noted that in 1993 alone, 14 banks in Kenya failed.

In recognition of the high risks involved in banking, the Central Bank of Kenya has published Risk Management Guidelines (2005) for the purpose of providing guidance to all financial institutions on the minimum requirements for a risk management framework and strategy. It has classified the risks facing financial institution into nine classes namely; strategic risk, credit risk, liquidity risk, interest rate risk, price risk, foreign exchange rate risk, operational risk, reputation risk, and regulatory risk.

The Central Bank Guidelines have defined all the above risks and proposed how they should be managed. Further, it has clearly stipulated the role of the internal auditor in the review of all the above risks. However, there are no clear statements on what techniques are to be used in the review. The guidelines have also proposed that all banks should appoint a risk manager to take charge of the risk management process.

1.2 PROBLEM STATEMENT

Until the publishing of Basel II in 2004 by the Bank for International Settlements (BASEL) and the subsequent publishing of CBK guidelines in risk in August, 2005, there were no formal guidelines on risk management for banking institutions. The guidelines have called for the establishments of a risk department headed by a risk manager who will be in charge of implementing a bank wide risk management practice. The guidelines have further recommended that the internal auditors in the banks must take up their role of assessment and review of the bank wide risk management practices.

Traditionally, internal auditors have carried out some risk management functions albeit informally. Idarus (2005) found that the operational risk management function was in the hands of the internal auditors. This brings in a conflict between the role of the risk managers and internal auditors in banks risk management practices. Out of limited research that has been conducted on this relationship it has emerged that the lines are not yet clearly drawn. The Institute of Internal Auditors of America, (I.I.A, 2005) in a

research which did not restrict itself to the banking sector found out that, risk management was a role of internal audit in 36% of the respondent organizations and it's the function of a risk management department in 27% of the respondents. The other respondents said that the role of risk management was neither an internal audit function nor a risk department function.

Apart from the turf wars which are likely to emerge between risk and audit departments, there is the issue of; what the internal audits will look for, in order to satisfy themselves that risk management in the various risk areas is satisfactory. First, there is the problem of dichotomy of the various risk areas identified by Basel II and CBK guidelines. Then, there is the issue of completeness. CBK Guidelines (2005) emphasized that theirs are just the minimum possible guidelines and that banks should have more elaborate procedures. The internal auditors will therefore be required to be more alert to ensure that the practices in place in their banks more than satisfy the regulatory requirements. No documented guidance or internal audit standard of practice have come out to guide auditors on how to address the issue of review of risk management in their institutions. It's therefore likely that the practices in place vary widely among the internal audit practitioners in banks in Kenya.

In view of this and the fact that risk management has become institutionalized as a regulatory requirement for all banks in Kenya without exceptions, there is need for a study that will focus on the various approaches used by internal auditors in their review of the various risk management strategies employed by banks to mitigate against risks. This study attempts to address the following questions; what methods and techniques are being employed by internal auditors in their review of the various risk management strategies employed by the banks to mitigate against risks? What is the role of internal audit department in risk management? Where is the boundary between internal audit and risk management departments' roles in the bank risk management strategy?

1.3 STUDY OBJECTIVES

The objectives of the study were;

1. To establish the internal auditors perception of their distinct role as opposed to that being played by the risk management department.
2. To establish internal auditors risk assessment practices in banks in Kenya.

1.4 IMPORTANCE OF THE STUDY

The findings of this study will be of interest to a number of people:

The Central Bank of Kenya Supervision Unit will be interested on how the banks internal auditors have understood and implemented the Central Bank Guidelines on risk management.

Internal auditors in banks in Kenya will be interested on how their peers in the banking industry are doing risk management assessment in the various areas, as well as the roles they are playing in the implementation of their bank-wide risk management strategy.

Risk managers will be interested in knowing to what extent they can involve internal auditors in the implementation of the risk management strategy.

To Scholars and academicians, the findings will add to the body of knowledge available on internal auditing especially the now more critical area of risk management.

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

Risk taking is an inherent element of banking and indeed, profits are in part the reward for successful risk taking business (Hitchins, 1996). He further argues that risks arise in every transaction and process in a bank's business. Apart from bank specific risks the banking industry is known to be vulnerable to systematic crises. According to Hyytinen (2004), banks are 'black boxes' both because opacity seems intrinsic to their business and because weak transparency makes their assets risks opaque. Measuring banks credit worthiness and risk exposure is therefore very difficult.

The changing environment in which banks find themselves has meant that they must constantly change to respond to the evolving environment. This has meant introduction of new products and change of management styles. These changes have come with increased risk profiles. The changes that have expanded the risk profiles According to Lore (2000) include; continuing globalization of the world financial markets, intensifying competition within the financial service industry which continues to erode profit margin, advancing technology, and increasing prudential and regulating requirements. Here in Kenya, liberation of the economy in the 1990's for example led to massive bank failures (Kathanje, 2000).

Banks fail when they are unable to manage the risks they are exposed to. According to CBK (2005) banks fail because of excessive poorly managed risks. All banks must therefore adopt a firm wide risk management framework.

2.2 RISK MANAGEMENT.

A firm wide risk management framework is an amalgam of strategy, process, infrastructure and environment which helps such institutions make intelligent risk taking decisions prior to committing limited resources and then helps to monitor the outcome of these decisions (Venkat, 2000). This integrated approach to managing risks ensures full risks identification, risk awareness, risk assessment, measurement and control and finally evaluation.

Risk identification involves outlining all the risks possible in every product or service offered by the bank. Risk awareness involves communicating risks, sharing lessons and implementing industry best practices so that exposure and risk impact of each business initiative in the overall risk profile of the bank is acknowledged. Risk assessment enables an organization to determine whether a specific transaction or business is appropriate from a risk return perspective. Measurement entails quantifying risks in a consistent corporate wide manner to determine the types and events of risks being assumed in line with the expressed risk appetite. After measurements then there are controls, i.e. setting limits to avoid unnecessary concentration of risks.

Evaluation entails examination of different risk taking activities to ensure that there is adequate differentiation of business or products that create value and those that destroy value. You attempt to allocate and balance the different types of risks. Marco (2003) uses the term risk assessment instead of evaluation and defines it, as the process of identifying, measuring and prioritizing risk.

Risk management is concerned with how an entity takes risks and how it manages them. Risk management process is the structures and cycles of control activities that provide management with the assurance that all risks within an institution are being effectively managed, whether for an individual transaction or in aggregation portfolio.

Risks are identified, captured, assessed, measured and reported. Selim (1999) argues that the new paradigm in risk management involves viewing business risks in the context of their relationships to change, opportunities, objectives and controls. It also involves examining threats not only to financial performance and control but also to an organizations strategies, business objectives and reputation.

Venkat (2000) has identified some of the possible risk management objectives; namely, link the business strategy to the risk management strategy to ensure consistency with enterprise competitive advantages to assume, distribute and retain risk. The focus should be improving quality and sustainability of earnings, enhancing risk taking efficiency, meeting customer needs and increasing shareholders value.

Some of the possible benefits that a bank can accrue from risk management as identified by Duncan (2000) include; avoidance of large unexpected losses, Avoidance of a large number of small losses, improved operational efficiency, improved return on capital, reduced earning volatility, better capital allocation, improved customer satisfaction, improved awareness of operational risks within the management, better management of knowledge and intellectual capital within the firm, assurance to the senior management and the shareholders that risks are properly addressed.

All banks can therefore benefit enormously from an effective risk management strategy. Such a strategy requires a formal process (Greuning, 2003, CBK, 2005). The components of an effective risk management framework in a bank should include; an active board and senior management, who must understand and own risk management, adequate policies and procedures, an established risk management department, an adequate risk monitoring and management Information system (MIS), and finally, internal auditors who must ensure that there are adequate controls to ensure that the operations are effective and that there is a reliable financial and reporting framework.

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2.3 INTERNAL AUDIT RISK MANAGEMENT ROLES

Most organizations establish an internal audit department in order to strengthen their corporate governance. Corporate governance involves a set of relationships between a company's management, its board, shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performances (OECD, 2004).

Internal auditors' role in corporate governance can be seen in two ways. First, internal auditors provide independent and objective assessment on the appropriateness of the organization governance structure and the operating effectiveness of specific governance activities. Second, they act as catalyst for change, advising or advocating improvements to enhance the organizations governance structure and practices (Greuning 2003).

In a bank, poor corporate governance can lead to loss of confidence on the ability of a bank to properly manage its assets and liabilities, including deposits which could in turn trigger a bank run or liquidity crises. Sound corporate governance is therefore an essential element in safe and sound functioning of a bank and may affect the banks risk profile if not implemented effectively.

Banking being a high risk business requires strong corporate governance. In recognition of this, the various supervisory bodies and bank industry players and commentators have recommended that a strong internal audit department be established in all banks. (Basel, 1999; CBK, 2005; Mounted, 2002). Senior management should effectively utilize the work conducted by internal auditor.

The Central Bank of Kenya Prudential Guidelines (2006) have specifically provided that, the internal audit department should be staffed with qualified personnel, with the head of internal audit department being a registered accountant. The guidelines have further stipulated that the internal audit department reports to the audit committee of the board to enhance its independence. This is perfectly in line with Marco (2003) conclusion that, regulations issued by outside supervisory bodies were a driving force in broadening the internal audit activities in the banking industry.

The most important duties of internal audit department in banks include; providing assurance regarding corporate governance, control system and risk management process (Greuning, 2003). Other roles include; the review of annual financial statement prior to their submission to the board of directors to ensure that appropriate accounting polices and practices are used in the development of financial statement and review of compliance with legal and regulatory requirements. Marco (2003) in his survey of large Italian companies found that, internal auditors spend 34% of audit resources in operational audits, 20% on compliance, 16% on risk management, 10% on MIS and 5% on financial audits.

Selim (1999) notes that, the hypothesized relationship between internal auditing and risk management has been the subject of anecdotal evidence for a long time. He goes on to argue that internal auditing in the organizations at the leading edge of developing and implementing risk management framework and processes have succeeded in becoming partners in the risk management domain. Internal auditors have only been successful when they accept the need to respond to the management concern with business risk. With the risk approach the internal auditors must shift their auditing work from being control driven to being business risk driven.

Marco (2003) found that currently most internal auditors claiming to be risk responsive have simply applied the Audit Risk Model (ISA-400). In this approach auditors are doing macro risk assessment by looking at the risks in the various auditable areas and determining the areas in which to prioritize the audit department resources. However the internal auditors seldom use a formalized model in which risk factors are weighed numerically according to their importance in order to give a quantative rating to each auditable area. He found out that the chief internal auditors often allocated the auditing resources according to the perception of risk. In the next stage, auditors are applying micro risk assessment for each audit engagement to determine the extent and the depth of audit tests. Most internal auditors believed that the objective to embrace risks in planning each audit engagement was less important than in planning the annual schedule of audits. 67% of the internal auditors studied were found to be applying the traditional control based audit in planning for audit engagement. Those internal audits found to be applying a purely risk based audit were only 8%.

The Audit Risk Model as codified by ISA 400 is based on the idea that an auditor's detection risk is influenced by inherent risk and control risk. Blokdjik, 2004 points out that the audit risk model does not present a realistic solution to the problem of missing but indispensable non-reproducible controls. He goes on to note that this model has come under heavy criticism especially by the Securities And Exchange Commission (SEC) of America, which has described it as a re-engineered approach which is only marginally efficient but significantly less effective. The basis of the of the criticisms are the limitation of internal controls namely; human error, circumvention of internal controls through collusion and management override, making the application of the Audit Risk Model an inferior model to deal with business wide risk.

Fukukawa (2006) questions the effectiveness of the Audit Risk Model and in his study of 235 companies in Japan found out that; though audit planning is risk adjusted the

association between the company management risks and the audit plans was rather modest. There is therefore a need for a model for internal auditors to use. The model being developed is the Risk Based Auditing Model and not the standards Audit Risk Model. In the model the chief internal auditor sits in the strategic planning group and is a member of the risk councils, he will also need to be aware of the business risks facing the organization either formally or informally early in the strategic planning process.

Selim (1999) argues that internal audit efforts need to mirror the strategic and operational plans. This strategic plan is translated into an audit universe by focusing on key assets, projects and processes. He adds that risk based auditing obviates the need for the audit cycle where every unit is given a frequency of 1-5 years sometimes based on perceived risk. The rationale for the redundancy of the audit cycle, is that; risk based audit uses business risks to determine when and where auditors need to go and this information is reviewed periodically throughout the year. It also means broadening the perspective of internal auditing to include other risk management techniques in addition to dealing with control activities. Where it is accepted, it will give the internal auditors the added mechanism for examining the business process for excessive controls, thereby, allowing the auditor the opportunity to recommend fewer controls (since outdated and inefficient controls are identified).

Internal auditors must however play their role of providing assurance to the management and the audit committee that risks are understood and managed appropriately (IIA, 2002).

In a survey carried out by the Institute of Internal Auditors of America (IIA,2005), it was revealed that most internal auditors and enterprise managers lacked clarity on the distinction between the responsibilities for risk assurance implementation (auditor's role); versus responsibility for risk compliance and monitoring (risks department role).

Their paper on the Role of Internal Auditor in Enterprise Risk Management (ERM) proposed that there is need for a distinction between those activities in risk management that internal auditors should undertake and those that should be carried out by the risk management department. It proposed that internal auditors should retain their role as referees in risk management. It further sought to specifically outline the core roles of internal audit department in risk management process which are; giving assurance on risk management processes, giving assurances that risks are evaluated correctly, evaluating the risk management processes, evaluating the reporting of key risks and finally, reviewing the management of key risks.

The IIA has specifically warned that internal auditors should not be involved in; setting the risk appetite, imposing risk management processes, providing management assurance on risks, implementing risk responses on management's behalf and having accountability for risk management. IIA (2005) is of the opinion that the risk managers appointed in banks should be the ones to take charge of the bank wide risk management process, and that internal auditors should serve in a monitoring or consulting role through much of the risk management process.

While the IIA (2005) described those core roles of the internal auditor and those to be played by the management and by extension the risk manager, certain roles will need a collaboration of the two departments. These roles include; facilitating identification and evaluation of risks, couching management in responding to risks, coordinating ERM-related activities, considering the reporting of key risks, maintaining and developing the ERM framework, championing the establishment of ERM and developing a risk management strategy for the board approval. The IIA (2005) describes the above activities as consulting activities for the internal auditor and cautions internal auditors to ensure that safeguards are put in place to ensure that they do not take on management responsibility of actually managing risks.

2.4 RISK MANAGEMENT IN BANKS

Marco (2003) found that, all the financial institution in his study group had developed structured models to monitor business risks, primary to comply with regulatory requirements. The banking industry is heavily regulated all over the world because banks are special. Benston (2004) outlines the reasons why banks are special, namely; efficiently produced products, importance for the development and growth of the economy, international scope of the industry, role in economic instability in case of systematic failures, a tool for conduct of monetary policy, and finally public policy concerns on issues of fraud and deposit protection. The heavy regulation has led to the moral hazard dilemma whereby customers become complacent in assessing the management of the banks in which they place their deposit for risky behavior because they are protected by the deposit insurance schemes. Eventually, market forces have not regulated the banking industry.

The world leading authority document in risk management in banks is Basel II prepared by the Bank for International Settlements (Basel) published in 2004. To pave the way for the implementation for the accord Central Bank of Kenya commissioned a study in 2004 to determine the needs of the local banking sector with regard to risk management. The survey revealed that there was a high level of awareness in the banking institutions on the importance of employing systematic methods of identifying, analyzing and controlling/mitigating risks. However, few institutions had committed resources to build capacity on risk management, generate effective reports, apply risk management tools and ensure independent reviews (CBK, 2004).

The Central Bank of Kenya used the findings of the Risk Management Survey (2004) to come up with the Central Bank Risk Management Guidelines (2005). Following closely was the Central Bank Prudential Guidelines (2006) that sought to entrench the risk management guidelines. It proposed the establishment of a risk management committee

in every bank to assist the board of directors in discharging its duties in risk management. This committee will then be charged with risk management in the banks. In the carrying out of its assigned role, the committee is expected ton establish a risk management function; set its nature, role, responsibility and authority. It will appoint a risk manager who will implement its mandate on a day to day basis.

On the same breadth, the guidelines have sought to strengthen the function of internal audit department in the banks. They have guided that all banks should henceforth establish a board audit committee whose terms of reference includes the setting up of a functional internal audit department. It's also the requirement of the guidelines that the head of internal audit should be a qualified accountant registered with the Institute of Certified Public Accountants of Kenya (ICPAK). On risk management, the guidelines have stipulated that the audit committee and in extension the internal audit department should review the risk management process of the bank. Greuning (2003) argues that an internal audit department can be a valuable tool in helping the management assesses the risk management process.

The creation of a risk management department and the existence of an internal audit department both with something to do with risk management issues is likely to fuel conflict in the absence of clear terms of reference. This confusion was passively acknowledged by Idarus (2005) in his study on Operation Risk Management in Banks. He found out that most banks had not established a specific department to deal with operational risk management and had instead left the role to the internal auditor. In such a scenario, whenever a risk management department is established without clear guidelines, conflict is bound to arise. On the other hand, when an internal auditor is involved with the establishment of risk management policies and procedures it would be inappropriate for him to assess the risk management process due to loss of independence.

Most banks have embraced risk management practices in Kenya. In a CBK (2004) survey, it was established that 94% of all banking institutions had clearly defined risk management guidelines. The risk management tools applied in the banking sector in Kenya includes contingency planning, back testing, value at risk, stress testing and gap analysis. However the most widely used tool was contingency planning according to the study. Major gaps were however noted in the risk management strategy of most banks; including, inadequate risk management policies and procedures particularly for non-credit risk, and not all institutions had a functional department dedicated to risk management. The bank survey revealed that 97% of the banks thought that credit risk was the most important risk.

While most banks in Kenya have adopted risk management practices willingly as a tool to help them in shielding themselves from suffering unacceptable loss, there could be quite a number who are implementing risk management strategies to follow industrial trends, or to fulfill the prudential requirements. This is the challenge of internal audit department. It must assess whether risk management practices in place are just cosmetic table dressing, or they are worthy procedures which will shield their banking institutions.

If a bank board is responding to prudential guidelines on risk management, it needs to be informed that those guidelines are only minimum requirements and cannot prevent a bank from failing. Banks must ensure that they go an extra mile to ensure that their risk management strategies are working. In a study sponsored by Organization for Economic Co-Operation and Development (OECD,2000) on bank failures of the 1980's and 1990's, it was found out that though bank regulations can limit the scope and the cost of bank failures, it was unlikely to prevent those failures that have systematic causes.

In another study carried out on 117 individual bank failures in France, UK & Scandinavian countries it was discovered that management and control weaknesses (operational risk) were significant contributory factors in nearly all cases (Basel,2004). The same study notes that, at the time of their collapse nearly 90% of all the banks had reported central bank ratios close to the regulatory requirements when difficulties emerged.

Obiero (2002) in his study on Banking Sector Regulatory Framework in Kenya found out that, some failures in banks were caused by delays of supervisors/ regulators in promptly and effectively implementing the provisions of the law. More recently Charterhouse Bank went under after concerns were raised in parliament many months after CBK had discovered rampant irregularities and had not acted. (Nation; June 24, 2006).

Forward looking banks must therefore strengthen their risk management process to identify, monitor and manage all risks inherent in all their transactions, product, processes and environment. The internal audit department must be empowered to assess independently the risk management process in order to assure the board that the process is operating as it should.

2.5 RISK MANAGEMENT DEPARTMENT (RMD) ROLES

Venkat (2000), Greuning (2003) and CBK (2005) have identified the need to appoint a risk manager in all institutions who will take charge, and drive the ERM process. The risk manager will focus on achieving the objectives of the ERM process which is enhancing the shareholders value. Enhancing shareholder value over the long term requires both risk assessment; comprehending the potential upside and downside of business decisions as well as risk management, which is; increasing the likelihood of

success, reducing the probability of failure and limiting the uncertainty of the overall financial performance.

Venkat (2000) has identified the roles of a firm wide risk manager in financial institutions as; participating in target market and business strategies formulation, creating an increased awareness of a different types of risks across the firms, reviewing risk-taking strategies adopted by business units, creating or recommending enterprise wide risk policies and procedures, identifying existing and potential market, credit and operational risks along with potential interrelationships across the risks, developing and implementing methodology (value at risk, risk-adopted return on capital etc) for measuring risks across the institution in a consistent and uniform manner, developing risk-related performance measures and indicators, communicating risk policies and methodologies across the firm, setting or recommending risk limits and diversification strategies, ensure compliance with the firms risk policies, limits structures and diversification strategies, monitor the overall exposures to risks and reporting this to the senior management on a frequent and periodic basis.

Other roles include; to develop and maintain risk measurement models and validate revaluation of models, perform enterprise wide stress testing, develop capital measurements methodologies and finally assisting the business units in achieving stabilities of earnings, improved risk adjusted returns and enhanced shareholders value contributions through a better risk measurement and informed decisions.

2.6 STRATEGIC RISK MANAGEMENT

Strategic risk is the current and prospective impact on earnings or capital arising from adverse business decisions, improper implementation of decisions or lack of responsiveness to industry changes (CBK 2005). Strategic risk is a function of compatibility of organization strategic goals, the business strategies developed against these goals and the quality of implementation.

In a survey by Ernest and Young (2005) the respondents anticipated the biggest area of concern in risk management in future, to be actually strategic and technology risk. This was consistent with the findings of the same study that management of most organizations had developed reasonable models to deal with financial and compliance risks but little had been done in the area of strategic and technology risk.

The banking industry in Kenya is in a state of transformation. Banks have awakened and are going full throttle to market their products. Competition is getting intense and any bank that does not formulate and execute proper strategies will soon find itself edged out of the market.

According to CBK (2005), in order to ensure that a strategic management process is in place the board and senior management must first, deploy a management information system that enables management to monitor current growth, inflation and foreign exchange trends. Second, risk management practices must be an integral part of strategic planning. Third, procedures for definitions and reviewing of the institutions business strategy should give due consideration to the SWOT analysis. And finally, limits should be put in place which should take the form of exposure to different sectors, growth of businesses, staff strategies and network expansion programs.

2.7 CREDIT RISK MANAGEMENT

Greuning (2003) defines credit risk as the chance that a debtor or a financial instrument issuer will not be able to pay interest or repay the principal according to the terms specified in a credit agreement. It means that payments may be delayed or ultimately not paid at all, which may cause cash flow problems and affect banks liquidity.

Credit risk is the most important area in risk management. More than 80% of all banks balance sheets relate to credit (Greuning, 2003; Kabiru, 2002; Idarus; 2005). All over the world exposure to credit risk has led to many bank failures. According to Basel (2004), credit risk exposure particularly to real estate led to widespread banking problems in Switzerland, Spain, the United Kingdom, Sweden, Japan and others. Here in Kenya Obiero (2002) found out that credit risk was only second to poor management in contributing to bank failures. On perception, Idarus (2005) found out that credit risk was the most important area of risk management in Kenya.

Because of the dire consequences of credit risk, its important that internal auditors perform a comprehensive evaluation of credit risk covering the credit portfolio management, lending function & operations, credit risk management policies , non-performing loans portfolio, asset classification , and loan loss provisioning policy. This review must be done at least annually (Basel II, 2004).

More specifically the internal auditor while making an assessment of credit risk must consider; Management abilities to administer and collect problem assets, undue concentration of credit, adequacy and effectiveness of and adherence to lending policies, credit administration process, monitoring initial and changing level of risk, or risk associated with approved credit exposure, concentration risk and that the bank reporting system is accurate.

2.8 LIQUIDITY RISK MANAGEMENT

A bank has adequate liquidity potential when it can obtain needed funds by increasing liabilities, securitizing or selling its assets promptly and with a reasonable rate. The price of liquidity is a function of market conditions and the market perception of the inherent riskness of the borrowing institution. Liquidity management in banks is complicated by the fact that banks are highly leveraged and that the actual inflows and outflows of funds do not necessarily reflect actual contractual maturities. At the same time, banks must be able to meet certain commitments; such as deposits whenever they become due. If liquidity mismatches is not well managed a bank may experience liquidity problems (Greuning, 2003).

Due to the importance of liquidity management, the main objective of most regulators in the world is fostering liquidity in banking institutions (Obiero, 2002). Liquidity management policies of banks normally comprises of; decision- making structures, an approach to funding and liquidity operations, a set of limits to liquidity risk exposure, and a set of procedures for liquidity planning under alternative scenarios, including a crisis situation.

Liquidity needs are usually determined by construction of a maturity ladder that comprises of expected cash flows and outflows over a series of specified time bands. Contingent liabilities i.e. letters of credit and financial guarantees usually present a huge challenge to liquidity risk management because they represent potentially significant cash flows that are not dependent on a banks financial conditions, while their outflows in normal circumstances are low. Another challenge is the existence of multiple currencies particularly when domestic currency is not freely convertible .This calls for a separate liquidity analysis in each currency (Greuning, 2003).

Any serious assessment of liquidity risk management must start with assessing whether; the bank has policies in place which establish various limits. For example, the limit on

loan to deposit ratio, loan to capital ratio, liquidity parameters that limit the minimum and maximum allowable liquidity, as well as the percentage limit on reliance of a particular category of funds. The assessment must go on to analyze deposits by product range, and deposit concentration; in order to determine the overall deposits structure. This will help to determine what percentage of deposits can be said to consist of hardcore deposits, fluctuating or seasonal deposits. One must also analyze the ability of the bank to get short term funds from money markets in times of uncertainty, the maturity structure and funding mismatches (Greuning, 2003; CBK, 2005).

Assessment must be done on whether the bank has access to a diversified funding base and the terms of sources of funds. Volatility and reliability of all sources of liquidity should be analyzed. Finally, an assessment of the contingency plans in place for handling liquidity crisis is a must (Greuning, 2003).

2.9 MARKET RISK MANAGEMENT

Greuning (2003) argues that market risk is the risk that a bank may experience loss due to unfavorable movements in market prices, exposure to such risks may arise as a result of the bank taking deliberate speculative positions (proprietary trading) or may ensue from the bank's market making (dealer) activities. Basel (2004), defines market to include the risks pertaining to interest rate related instruments and equities in the trading book and foreign exchange risk and commodities risk throughout the bank.

According to CBK (2005) market risk arises from the volatility of positions taken in four fundamental economic markets; interest sensitive debt securities, equities, currencies and commodities. The volatilities of each of these markets exposes the banks to fluctuations in the price or values of on- and off- balance sheet marketable financial instruments. The potential loss arises from the process of revaluing equity or investment position in shilling terms.

The first step in assessment of market risk management is to see whether there are appropriate policies which reflect the tolerance of the banks management for the various risks arising from investment and trading activities. The following limits should be there; company limit and sectoral exposure, limits for more volatile and for the less volatile, as well as the frequency of revaluations. Other measures include; marking to market, which refers to re-pricing of a banks portfolio to reflect changes in asset prices due to market movements where, stable liquidity investment should be revalued monthly, and trading portfolio on daily basis. Revaluation prices should be determined and fixed by officers who are independent of the respective dealers or traders. Where it's found prudent, banks should require interest price and Performance evaluation form externals sources (Greuning, 2003; CBK, 2005)

Position limits should be established for long, short or net position to set levels of risks taken by individual's dealers. Other limits include stop loss provisions determined in relation to the banks capital structures and earnings, trends and overall risk profits. Limits to new market presence needs to be in place (Greuning, 2003; CBK, 2005).

Trading needs to be highly skilled, technical analysis should be used to gauge market movements and fundamentals analysis done on market behavior. There should be an ex-post analysis in order to understand how price movements have affected profit and loss. In addition, routine and rigorous programs of stress testing to support analysis provided by the risk measurement models should be done and the results of stress test should be received by senior management A fundamental market risk management tool is diversification. One should assess whether there are unnecessary concentration of investments and whether there are risk budgets. Risk budgets establish the tolerance of the board or its delegates to incomes or capital loss due to market risk over a given time i.e. one year, (Greuning, 2003; CBK, 2005).

An internal auditor should check whether there is proper delegation of risk taking authority and accountability for risks taken, which is affected through management reports. Such management reports should also include a descriptive analysis of market strategies; market movements and results-Performance attribution which allow ex-post critique of the results from specific risk taking activities.

2.10 INTEREST RATE RISK MANAGEMENT

Interest rate risk is the current or prospective risk to earnings and capital arising from adverse movements in interest rates (CBK 2005). A change in interest rates affects banks earnings by changing its net interest income and the level of other interest sensitive incomes and operating expenses. Basel II (2004) stipulates that the measurement should include all material interest rate positions of the bank and consider all relevant repricing and maturity date.

Greuning (2003) argues that interest rate risk management comprises of the various policies, actions and techniques that a bank can use to reduce the risk of diminution of its net equity as a result of adverse changes in interest rates. These are the policies that an internal auditor should look for and include; delineated lines of responsibility & accountability over interest rate risk management decisions, identification of the types of instruments and activities that financial institutions may employ or conduct, and the quantitative parameters that define the level of interest rates risk acceptable for the bank for each type of instrument and product ,appropriate limits and authorization, an interest rate risk measurement and monitoring system that assess the effects of the rate changes on both earnings and economic value of the bank Finally, appropriate management reports should be produced in form of summaries of financial institutions aggregate exposures and on financial institutions compliance with policies and limits.

2. 11 CURRENCY RISK MANAGEMENT

Currency risk results from changes in exchange rates between a banks domestic currency and other currencies. CBK (2005) defines it as, the current or prospective risk to earnings and capital arising from adverse movements in currency exchange rates. The potential for loss arises from the process of revaluing of foreign currency positions on both on- and off- balance sheet items in shilling terms.

The risk arises from mismatches, and may cause a bank to experience losses as a result of adverse exchange rate movements during a period in which a bank has an open on- or off-balance sheet position, either spot or forward, in an individual foreign currency. The most famous case in history is the Herstatt Crises of June 1974 which was caused by speculation in a foreign exchange market where Herstatt Bank of Germany Lost 470 Million Deutche Marks within 4 days (Basel,2004).

Ideal risk management policies in a bank should cover limits on overnight open position, currency by currency and for all of them combined, limits covering intra-day foreign activities, limits for its individual currency dealers/traders, limits on the size of mismatch in the foreign exchange books, limits on the total amount that is outstanding and subject to settlement risk in a given currency, counter party limits, especially for parties in countries that have currencies without convertibility and finally a policy of the frequencies of revaluation (CBK (2005).

It's worthwhile for anyone looking at foreign exchange risk to realize that this risk can easily invite liquidity problems (Greuning (2003). For foreign exchange risk management to succeed it must be done by technically competent staff with sophisticated technology to be able to access up to the minute information.

Effective management information system must be in place with the following possible reports being generated for the management, net overnight positions by currency, maturity distribution by currency of the assets and liabilities for both on- and off-balance sheet items, outstanding contracts by settlement date and currency, total value of outstanding contracts spot or forward, gains and losses totals and comparison to previous day, and exceptional reports e.g. on excess over established limits (CBK (2005).

2.12 OPERATIONAL RISK MANAGEMENT

According to Skora (2000), operational risk is the risk associated with operating the business and can be classified into two; operational failure risk and operational strategic risk. Operational failure risk arises from the potential for failure in the course of operating business caused by people, process and technology. Operational strategic risk on the other hand, arises from environmental factors such as new competitors that change the business paradigm, earth quake, political upheavals etc.

Obiero (2002) in his study of bank failures in Kenya found out that the major causes of bank failures was mainly dishonest bank managers (operation risk). Such situations lead to insider transaction, embezzlement and manipulation of accounts. Obiero (2002) lays the blame squarely on directors, whom he blames for not formulating appropriate policy guidelines to guide senior management in running the banking institutions. Elsewhere in the world, the failure of Bank of Credit and Commerce International (BCCI) was caused by fraud and losses on commercial loans (Basel, 2004). Omutende (2003) lays the blame of all banking crises to failure to manage operational risks.

Operational risk management includes the following; appropriate policies that establish clear guidelines for practices that may contribute to a reduction of operational risks, developing process maps of each business so that the process becomes transparent to the management, creating an operational risk catalogue which categorizes and defines the various operational risks arising from each organizational unit. The management

should develop a comprehensive set of operational metrics, deciding on how each new operational risk will be managed, and finally deciding on the frequency of risk assessment, and who will do it (CBK, 2005; Greuning ,2003).

The internal auditor can play a very important role in assessment of operational risk if he understands well what goes on in both the front and back office of the bank. On the overall the internal auditor needs at a regular interval to ensure that operational risk management process has integrity and is indeed being implemented with the appropriate controls.

2.13 REPUTATION RISK MANAGEMENT

CBK (2005) defines reputation risk as the potential that negative publicity regarding an institutions business practice, whether true or not, will cause a decline in the customer base, costly litigation, or revenue reductions. This risk may result from a financial institutions failure to effectively manage any, or all of the other risk types. Obiero (2002) found out that in 1998, four (4) banks failed due to reputation risk as result of panic triggered off by adverse information about the banks reaching the public.

A bank needs to have a clear understanding of the main threats to its reputation. These might manifest themselves through sustained media coverage as happened with the Bank Of Baroda, where a customer Mr. Kulwan Chadha claimed to have lost assets work 8 million shillings in a safe deposit locker (Nation; July 2, 2006). Other activities which may lead to loss of reputation include discrimination in the workplace, unethical trading, marketing failures or even product and service failure.

Having mapped the important risks the organization should establish procedures to monitor early warning signs of crystallization of reputation risk e.g. falling share prices and have contingency plans in place for mitigating the risks.

2.14 REGULATORY RISKS

According to Obiero (2002), Central Bank of Kenya was forced to invoke section 6 of the Banking Act (Cap. 488) to get away 3 banks in 1993 due to persistent violation of the banking act. Regulatory risk is therefore the risk of non compliance with regulatory guidelines. CBK (2005) describes it, as the risk of current and prospective risk to earnings or capital arising from violation of, or non conformance with laws, rules, regulations, prescribed practices, or ethical standards issued by the regulator from time to time.

Regulatory risk exposes the bank to fines, civil penalties, payments of damages and violation of contracts which could lead to diminished reputation, reduced franchise value, limited business opportunities, and reduced expansion potential and an inability to enforce a contract. More dire consequences are possible as happened to the three banks mentioned by Obiero (2002), above. More recently Charter House Bank was closed after a whistle blower in parliament forced CBK to put it under statutory management for practices which went against statutory requirements i.e. lending to one customer in excess of 25% of the core capital of the bank and opening accounts without account opening documents (Nation; June 24,2006). The internal auditor must ensure that banks management is complying with all statutory and prudential requirements.

2.15 RISK MEASUREMENT TOOLS

Greuning (2003) has identified the following risk Measurement tools;

2.15.1 Value at Risk (VAR)

VAR is a modeling technique that typically measures a banks aggregate market risk exposure and given a probability level, estimates the amount a bank would lose, if it were to hold a specific asset for a certain period of time. Inputs into a VAR-model include data on the banks positions and on prices, volatility and risk factors. The risks covered by the model should include all interest, currency, equity and commodity and

option positions inherent in the banks portfolio for both on- and off- balance sheet positions.

2.15.2 Stress Testing

The purpose of stress is testing it to identify events or influences that may result in a loss i.e. that may have a negative impact on a banks capital position. Stress testing should be qualitative and quantitative in nature. Quantitative criteria should identify plausible stress scenarios that could occur in a banks market environment. Qualitative criteria, should focus on 2 key aspects of stress testing; evaluation of the banks capacity to absorb potentially larger losses, and identification of measures that a bank can take to reduce risks and conserve capital.

The analysis includes obtaining data on the largest actual losses experienced during a specific period and comparing it to the level of losses by the banks internal risk measurements systems such as the VAR. It also includes simulation of extreme stress scenarios i.e. testing of a current portfolio against periods of significant disturbances.

2.15.3 Static Gap Model

The aim of the model is to allocate assets and liabilities to maturity buckets defined according to their repricing characteristics, and to measure the "gap" at each maturity point. In this model the components of the balance sheet are separated into items that are sensitive to interest rates and those that are not. They are in turn sorted by repricing period (or modified duration) and allocated time periods known as time or maturity buckets.

The focus of this analysis is on repricing, the point at which interest rates may be changed) and not the concept of liquidity and cash flow. In terms of this to risk management, the gap is closed when the re-pricing of rate sensitive assets and liabilities is adequately matched. This model can be improved through sensitivity analysis where

the interest rates are varied and their impact to the balance sheet and profit and loss studied by simulation.

2.15.4 Back Testing

The aim of back testing is to test the effectiveness of market risk measurements by comparing market risk figure with the volatility of actual trading results. When performed at business line or trading desk levels, back testing is a useful tool to evaluate risk measurements methods. The process consists of comparing profits and loss figures with corresponding market risk figures over a period of time.

Back testing at the portfolio level rather than for the whole bank, allows individual market risks measurement models to be tested in practice. The lower the level at which back testing is applied, the more information becomes available about the risk measurement method used. This allows areas to be identified where market risks are being taken that are not detected by the risk measurement systems.

2.15.5 Contingency Planning

Contingency planning is a risk management tool which can be simply described as planning for the unforeseen event or emergency. Contingency plans can be put in place for all the risk categories.

3.0 STUDY METHODLOGY

3.1 RESEARCH DESIGN

This study took a survey approach. The purpose of the study was to establish risk management perceptions and practices of internal auditors in the banking industry in Kenya. The survey approach was chosen given that no documented studies had been conducted in relation to internal audit practices as related to risk management for banks in Kenya and the fact that there was still a controversy between the roles of internal audit as opposed to roles being played by risk management department.

3.2 POPULATION AND SAMPLE

The target of the study was all the 44 banks in Kenya licensed under the Banking Act (cap 488) and as listed by CBK. Due to the fact that all the banks have headquarters in Nairobi, and that the internal audit departments were expected to be in the headquarters, the researcher was not expecting any problems.

3.3 DATA COLLECTION

The study used a structured questionnaire to gather primary data required for the study. The data was collected from internal audit managers or their appointed assistant. The choice was based on the fact that they were the best placed people to have the knowledge of how the department approaches risk management issues. The questionnaire comprised of both open ended and close ended questions. It was divided into three sections; Section 1, sought to obtain demographic data on banks in general and the internal audit departments in particular. Section 11, sought data on the role of the internal auditors in risk management. Section 111, tried to understand the approaches used by the various internal auditors in their assessment of risk management in their banks.

The questionnaire was administered through the "drop and pick later" method. Follow up was done by E-mails, Short Message Service (SMS) and phone calls, on arrangement some questionnaires were personally administered to the respondents.

3.4 DATA ANALYSIS TECHNIQUES

The primary data obtained in section I and II was summarized and analyzed through the use of descriptive statistics such as frequency tables, proportions and percentages and was presented using graphs, tables and charts. Care was taken to give the various respondents certain codes (i.e. BK 001) to ensure confidentiality of their identity as requested by most respondents. In section 111, data was analyzed through the use of factor analysis, which is a statistical technique for classifying a large number of interrelated variables into a limited number of factors. It's an efficient method for re-organizing the items a researcher is investigating into conceptual more precise groups of variables. This analysis was enabled by Microsoft Excel spread sheet package.

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4.0 DATA ANALYSIS

4.1 RESPONSE RATE

The banking industry in Kenya is currently composed of 44 institutions licensed under the Banking Act Cap 488(see appendix 1). However, one institution, Charter House Bank was still under statutory management at the time of this survey. The researcher therefore sent out 43 questionnaires, out of the 43, two other institutions were disqualified, as one bank had not established an internal audit department while the others internal auditor, who was only one, had resigned, and had not been replaced at the time of this study. Out of the 41 eligible institutions the researcher managed to get 21 responses, which translated to 51% of the total eligible respondents. This compares favorably with previous studies in the banking sector by Linyiro (2006) and Njogu (2005) that got a response rate of 50 %, and 30.2% respectively.

4.2 SKILLS IN INTERNAL AUDIT DEPARTMENT

Audit departments were staffed with at least one fully qualified accountant, this was in line with CBK guidelines that all internal audit departments should be headed by fully qualified accountant registered by ICPAK. On further probing, the study revealed that only 8 institutions out of 21 (38%) had internal audit staff with banking qualification. This implied that internal audit departments in the remaining 62% institutions did not have a skill pool that could comprehensively understand all the banking business and the risks involved. The observation went against Selim(1999) assertion that for the interface of internal audit and risk management to develop fully, there's need to recruit internal auditors who were as confident discussing business risks and ways of managing them, as they were in carrying out audits i.e. review of operations. Those internal audit departments were therefore relying on business knowledge experience gained by internal auditors while on the job. This was however contradicted by the length of internal auditors experience in the study. On average it was revealed that over

61% of the staff in the respondent institutions had clocked less than five years in the banking industry audits.

4.3 ESTABLISHMENT OF INTERNAL AUDIT AND RISK MANAGEMENT DEPARTMENTS

It was proven from the research findings that internal audit departments (IAD) were established much earlier than risk management departments (RMD) in banks in Kenya. However the researcher came across one banking institution that had not established both the IAD and RMD (mentioned in point 4.1 and excluded from the study). The relative age of the two departments in the various banks (coded) is shown in Table 1.0 below.

From that table, it is apparent that 7 banks (33%) had not established a risk management department unit to carry out a comprehensive bank wide risk management function, independent of the internal audit function. What was happening was that for those banks where the RMD was not established, internal auditors were still responsible for the bank wide risk management strategy and practice. These findings were similar with the findings of Idarus (2005), who found that internal auditors were still responsible for operational risk management in banks in Kenya. This state of affairs compromises the internal auditors' independence in the risk management process and goes against IIA position on risk management and CBK Risk Management Guidelines of 2005.

TABLE 1.0 AGE OF IAD & RMD COMPARED.

Bank code	Age of bank (years)	Age of IAD (years)	Age of RMD (years)	Comments
Bk001	9	7	-	RMD not established
Bk002	25	2	-	RMD not established
Bk003	25	5	1	
Bk004	58	10	2	
Bk005	24	12	-	RMD not established
Bk006	101	100	40	
Bk007	25	6	1	
Bk008	16	12	2	
Bk009	22	7	1	
Bk010	18	5	-	RMD not established
Bk011	48	11	5	
Bk012	15	5	-	RMD not established
Bk013	35	13	2	
Bk014	52	11	2	
Bk015	15	9	1	
Bk016	25	6	-	RMD not established
Bk017	23	10	-	RMD not established
Bk018	54	1		
Bk019	45	25	1	
Bk020	42	16	1	
Bk021	10	3	1	

Source: Research Data

4.4 CONFLICT BETWEEN INTERNAL AUDIT AND RISK MANAGEMENT DEPARTMENTS

Apart from loss of independence observed in institutions where independent RMDs have not been established, the researcher came across four (4) institutions out 14 (29%) where there is already a conflict between IAD and RMD (where RMD is already established). The nature of the conflict arose out of lack of clarity of the distinct roles of the respective departments in the banks ERM. One respondent (BKOO7) complained, that the scope of IAD and RMDs work was intertwined in a number of areas, another respondent (BK008), complained of lack of clear understanding by the management of the respective departments role This was not surprising, as similar findings were observed by IIA (2005) study that revealed that most auditors and enterprise managers lacked clarity on the distinction between responsibilities for risk assurance (auditors role), versus responsibility for risk compliance and monitoring (RMD role).

The total number of banking institutions where risk management strategy has not been properly implemented therefore adds up to 11 that is, 7 institutions where RMD is not established and therefore ERM is being driven by IAD, and 4 institutions where RMD is already established but a conflict of the roles of IAD and RMD is already brewing. The eleven institutions make up to 52% of the respondents, from whom we can reasonably conclude that, the implementation of risk management strategy in the banking industry is far from being comprehensive.

4.5 ROLE OF INTERNAL AUDIT VERSUS RISK MANAGEMENT DEPARTMENT.

When the researcher requested the respondents to state the three most important roles of IAD and RMD respectively in an open ended question, only three heads of internal audit (14%) could confidently state the 3 roles of IAD and RMD respectively without any mix up. The remaining 86% could not clearly articulate as required, and any attempts resulted to a score of 0, 1 or 2 , out of 3, for either IAD or RMD roles respectively (see table 2.0 on the various bank scores). This clearly contradicted the findings of point 4.4 above, where only four (4) out of 14 respondents (whose

institutions had established RMDs), who admitted that there was a conflict between IAD and RMD. Perhaps the high number of respondents who denied any conflict did so due to lack of full appreciation of the two departments distinct roles.

TABLE 2.0 ROLES OF IAD AND RMD

Bank code	Role of IAD (Score of X/3)	Role of RMD (Score of X/3)	Mix up
Bk001	1	1	X
Bk002	0	2	X
Bk003	1	3	
Bk004	3	3	
Bk005	2	2	
Bk006	0	3	X
Bk007	2	3	X
Bk008	0	3	X
Bk009	0	3	
Bk010	1	0	X
Bk011	0	3	X
Bk012	2	3	X
Bk013	1	3	
Bk014	2	2	
Bk015	3	3	
Bk016	3	3	
Bk017	0	3	X
Bk018	0	1	X
Bk019	3	2	
Bk020	2	3	
Bk021	0	3	X

Key. The X indicates those respondents who mixed up the roles of both departments, instead of providing distinct answers as explained in the literature review.

Source: Research Data

4.6 RISK BASED AUDIT METHODOLOGY.

Two (2) institutions out of 21 admitted that they had not adopted risk based audit methodology, this translated to 9% of all the respondents. While the group that answered to the affirmative was high (81%), the researcher was unable to verify the basis of the audit methodology, whether the respondents where referring to the tradition audit risk model as encapsulated by ISA 400 or the now preferred truly business risk based methodology being advocated by Blokdijk (2004) and Selim (1999).

4.7 INTERNAL AUDITORS RESPONSIBILITY IN ERM

The study sought to find out what internal auditors in the banking industry perceived to be their responsibility in the ERM process. The e respondents were required to rate in a scale of 1-5 (no responsibility -1, limited responsibility -2, moderate responsibility-3, substantial responsibility-4 and total responsibility-5) the extent to which they were involved in the banks overall risk management roles as identified by the Institute Of Internal Auditors (IIA,2005).

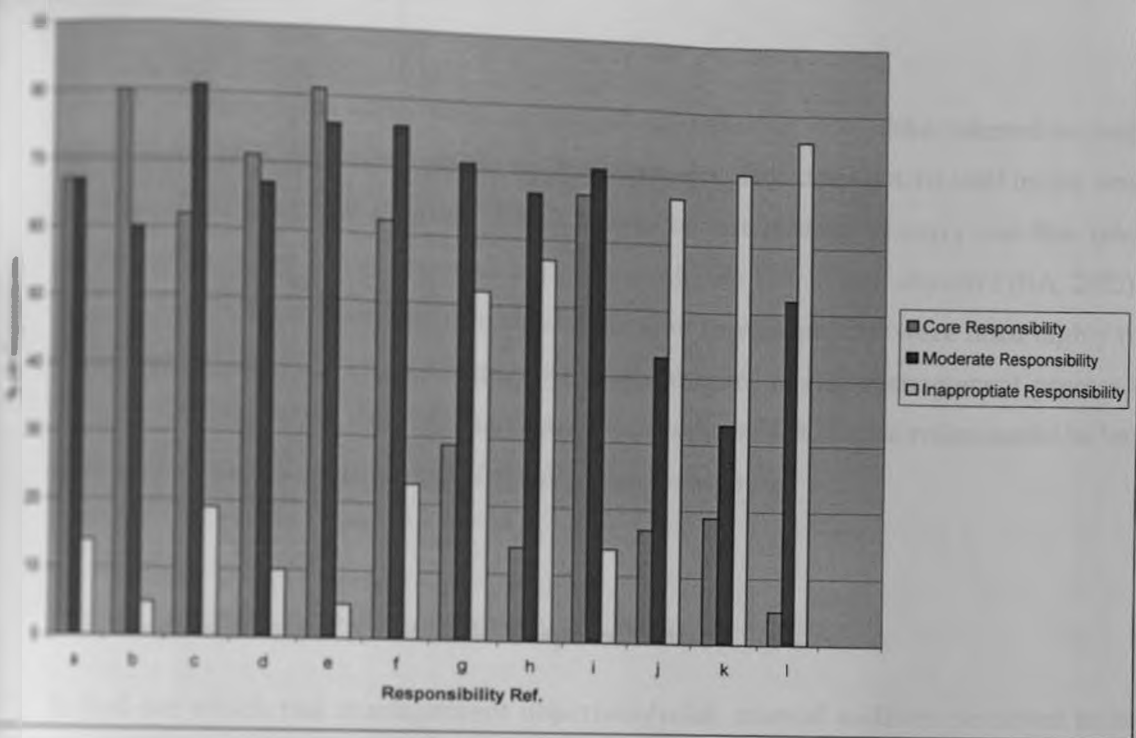
The pattern that emerged from the respondents indicated that internal auditors agreed to a very big extent with the prescription of IIA, 2005 (see table 3.0 and chart 1.0). The table and the chart show the aggregate rating by respondents for what was considered core, moderate and inappropriate activities by IIA (2005).

TABLE 3.0 INTERNAL AUDIT ERM RESPONSIBILITIES

Ref. No	Risk Management Role/ Responsibilities.	Core Resp.(%)	Moderate Resp. (%)	Inappropriate Resp. (%)
a	Giving assurance in risk management process	67	67	14
b	Giving assurance that risks are evaluated connect	80	60	5
c	Evaluating the reporting of key risks	62	81	19
d	Reviewing the management of key risks	71	67	10
e	Facilitating identification of key risks	81	76	5
f	Championing establishment of risk management process	62	76	23
g	Developing risk management strategy for the board	29	71	52
h	Setting the risk appetite in different functional areas	14	67	57
i	Improving risk management processes	67	71	14
j	Making decision on risk responses	17	43	67
k	Implementing risk responses	19	33	71
l	Having accountability for risk management	5	52	76

Key, the shaded cells indicate what IIA regard as core, moderate or inappropriate and the value of the cell indicate the % of respondents who correctly rated the objective as such.

Source: the table has been derived from Appendix VI



4.7.1 Internal Audit ERM Core Responsibilities.

To find out those roles that internal auditors in the banking industry in Kenya found to be core or critical to them, the researcher added up all those response that returned "substantial responsibility" or "total responsibility" for the question. The aggregate rating for all the risk management objectives (roles) was as illustrated by Table 3.0 and Chart 1.0

IIA (2005) prescribes that internal auditors have core responsibility in objective ref. no. a, b, c, and d. looking at the ratings given by respondents of 67%,80%,62% and 71%, majority of the internal auditors gave the core objectives listed a substantial responsibility to total responsibility.

As can be seen from Table 3.0 and chart 1.0 above, apart from those core activities, internal auditors also rated highly activity "e," facilitating identification of key risks, at 81%. This was actually the highest rating and may be attributed to the internal

auditors perception of their role; as that of discovering the risks inherent in their organizations and reporting them to management. This does not fit well in the new paradigm shift where a separate RMD has to be established to carry out this role; internal auditors are being required to play a moderate role in this objective (IIA, 2005). Other roles which internal auditors should go slow (moderate) but were rated highly in this study include, "f," championing the establishment of risk management process - 62% and "i," improving the risk management process at 67%. Those roles should be left to the RMD, internal auditors playing only a moderate role.

4.7.2 Moderate Internal Audit ERM Responsibilities

To find out which risk management objectives/roles internal auditors perceived to be moderately theirs, the researcher pooled and determined the percentages of all respondents who returned a "limited responsibilities", "moderate responsibility" and "substantial responsibility". As can be observed from Table 3.0 and Chart 1.0, the results of the survey indicated that majority of the internal auditors were aware that for certain risk management objective/roles their involvement should be moderate. The score for objectives e, f, g and i was 76%, 76%, 71% and 71% respectively, totally in agreement with IIA(2005) guidance. The only exception of the results was the role of "c," evaluating the reporting of key risk, which got a higher rating of 81%. This may be attributed to the establishment of a compliance office in the banking industry, and the transfer of this role to the compliance function in many banks in Kenya. Internal auditors seem to have ceded this role to the compliance department instead of seeing it as part of their core activity.

The study did not seek to find out whether internal auditors have put in place in safeguards to ensure that they do not take full responsibility on those ERM activities in which they were required to be involved in a moderate role. IIA (2005) however suggests that such preventive measures should include documenting the auditors ERM

responsibilities in an audit committee approved audit charter. Further to that, the internal auditor has the option of treating the engagement as a consultancy and applying the relevant IIA standards to help ensure their independence and objectivity.

4.7.3 Inappropriate Internal Auditors ERM Responsibilities

To find out which ERM roles internal auditors in the banking industry found to be most inappropriate the respondents rating for "no responsibility" and limited responsibility" were aggregated and percentages obtained for each risk management objective listed for them to rank, the results were as summarized in Table 3.0 and Chart 1.0. Again the results of the study were consistent with the IIA(2005) position, as the highest percentages in "no responsibility", and "limited responsibility" was witnessed for roles I, J,K & L which were rated 57%, 67%, 71% and 76% respectively. Another close ranking was that of "g," developing risk management strategy for the board, which was given-52%, this can be attributed to the fact that auditors may view this as a RMD role, and not their role.

4.8 INTERNAL AUDITORS RISK RATING.

The researcher requested the heads of internal auditors to rate the various categories of risks as outlined by CBK (2005), from the most important, to the least important. The highest importance was given to credit risk followed by operational risk, other categories followed as follows, liquidity, strategic risk, foreign currency risk, regulatory risk , interest rate risk, reputation risk and finally price risk in that order. The rating of credit risk as the most important risk followed by operational risk and liquidity risk was consistent with similar studies by Kabiru, (2002) and Idarus (2005). From Table 4.0 it was however evident those auditors of different institutions on individual cases gave a varied rating to the various risk categories. This can be attributed to the various internal and external environments facing the banks as individuals. For example, in the wake of 2007/2008 Finance Bill in which the Finance Minister proposed to amend the banking act to raise the minimum core capital of all banks operating in Kenya from Kshs. 500

million to 1 billion, the most important risk category for banks that have not attained the requirement may be regulatory risk.

TABLE 4.0 INTERNAL AUDITORS RISK RATING

Bank code	Strategic	Credit	Liquidity	Interest rate	currency	Price	Operational	Regulatory	Reputation
Bk00 1	6	2	1	7	3	8	4	5	9
Bk002	1	5	3	8	7	9	4	2	6
Bk003	4	2	3	5	6	9	1	8	7
Bk004	8	1	5	6	4	7	2	3	9
Bk005	6	3	2	5	7	9	1	4	8
Bk006	7	2	1	3	4	5	6	8	9
Bk007	1	2	3	6	7	5	4	9	8
Bk008	1	6	5	7	8	9	4	3	2
Bk009	6	2	1	7	3	8	4	5	9
Bk010	1	3	5	6	8	9	4	7	2
Bk011	5	4	3	8	7	9	1	2	6
Bk012	1	9	8	7	6	2	3	4	5
Bk013	2	1	4	7	5	9	3	6	8
Bk014	6	1	3	4	5	5	2	7	8
Bk015	5	1	2	4	3	6	3	8	9
Bk016	1	3	5	8	7	7	1	6	4
Bk017	8	4	2	5	3	9	1	6	7
Bk018	8	4	9	4	4	9	5	8	9
Bk019	1	3	5	6	9	8	4	7	2
Bk020	1	4	3	5	9	8	2	6	7
Bk021	1	2	4	7	5	6	3	9	8
Total points	80	60	77	125	120	156	62	123	142
Average ranking	80=3.8 21	2.86	3.67	5.95	5.71	7.43	2.95	5.86	6.76

Key: the respondents were required to rank all the 9 risk categories in a scale of 1-9 starting with the most important. The most important risk category was given 1 and the least important risk given 9.

Source: Research data

4.9 RISK CATEGORY REVIEW FREQUENCY

The bank internal auditors revealed no pattern of risk category review, however, the following frequency of review was observed to be most apparent from the responses, Strategic risk a yearly review was favored; Credit and price risk, a quarterly review; Interest rate and regulatory risk, a monthly review and finally for liquidity, currency and reputation risk a daily review was most favored. The outcome of the study more or less was consistent with the literature review for example ,All banks are expected to review all the credit accounts every quarter and make the required provisions, its therefore essential that internal auditors review that, provisions made are adequate every quarter, before the publishing of quarterly accounts. Most banks have strategic plans covering 3-5 years, which must be reviewed every year for evidence of progress towards the strategies set. On the other hand, liquidity and currency risk may require daily review, albeit informally.

The lack of pattern on frequency of review is shown in Table 7.0 below, this signals lack of internal audit standards and guidelines in the internal audit practice in banks. Perhaps CBK should partner with ICPAK to come up with internal audit guidelines for banks.

TABLE 5.0 FREQUENCY OF RISK REVIEW

Risk category	Daily (D)		Weekly (W)		Monthly (M)		Quarterly (Q)		Half yearly(H)		Yearly (Y)		Total respondents For category	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%
strategy	1	5	-	0	4	19	6	29	3	14	7	33	21	100
credit	6	29	1	5	3	14	8	38	1	5	2	10	21	100
liquidity	11	52	1	5	5	24	2	10	1	5	1	5	21	100
price	2	12	1	6	3	18	6	35	2	12	3	18	17	81
interest	2	10	5	25	6	30	5	25	2	10	-	0	20	95
currency	9	47	2	11	2	11	3	16	2	11	-	0	19	90
operational	7	35	1	5	6	30	5	25	1	5	-	0	20	95
regulatory	4	22	1	6	6	33	5	28	1	6	1	6	18	86
reputation	7	37	-	0	1	5	4	21	2	11	5	24	19	90

Source: the table is derived from appendix IV

4.10 RISK MEASUREMENT TOOLS

When the researcher sought to know the risk management tool most preferred by internal auditors for the various risk categories, the aggregate results were as follows; Value at Risk (VAR) was preferred for credit risk and price risk; contingency planning was preferred for strategic, reputation and regulatory risk; stress testing was preferred for measuring liquidity, price, interest and currency risk; and finally, gap analysis was also preferred for measuring regulatory risk.

The findings of the study were consistent with the literature review for strategic risk credit risk, liquidity, operational risk, price risk, and reputation risk. However, the most appropriate tool for both interest rate risk and currency risk would have been Gap Analysis. What however needs to be born in mind by the reader of this work is that a combination of tools can be used to measure one risk category, Greuning (2003). This explains why for price risk, there was a tie between stress testing and value at risk as tools of risk measurement. In regulatory risk, although contingency planning and gap analysis tools emerged as favorites, those who went for gap analysis may have missed the point as this was contrary to the literature review.

As can be observed from Table 6.0 below, the respondents' agreement on the most important risk measurement tools was marginal except for credit risk, interest rate risk, operational risk and reputation risk which received a consensus rate of over 50%. It is therefore apparent that, the choice of the most important tool was very inconsistent and varied from respondent to respondent, an indication of lack of a common conceptual framework on risk management amongst the internal auditors. Some of the choices made for the various category of risks revealed lack of adequate knowledge on the tools. For example, 38% of the respondents choose gap analysis as an appropriate risk management tool to measure strategic risk (see Table 6.0 below). Elsewhere one

respondent talked of preferring gap analysis tool to measure reputation risk, another respondent choose not to answer this section of the questionnaire, an indication that, he may not have understood clearly what risk management tools were, or how they are used.

Some respondents were unable to identify an appropriate tool for some of the risk categories, leading to a low response rate in some categories. Regulatory risk had the lowest with only 62% response rate; it was followed by reputation risk with 67%. This section on tools was also the section that the researcher got 5 queries (24% of the respondents) from the respondents requiring him to explain what risk measurement tools listed were, and how they are used. As suggested elsewhere in this paper a lot needs to be done to improve the level of internal auditors' awareness of all the risk management principles.

TABLE 6.0 RISK MEASUREMENT TOOLS PREFERNCE SUMMARY.

Risk Category	Contingency Planning (CP)		Back Testing (BT)		Value At Risk (VAR)		Stress Testing (ST)		Gap Analysis (GA)		Total Respondents	
	F	%	F	%	F	%	F	%	F	%	F	%
Strategic	8	44	1	6	-	0	3	17	6	33	18	87
Credit	2	11	1	5	11	58	5	26	-	0	19	90
Liquidity	5	26	1	5	-	0	7	37	6	32	19	90
Price	3	18	1	6	6	35	6	35	1	6	17	81
Interest	-	0	1	5	4	21	10	53	4	21	19	90
Currency	2	11	2	11	6	32	9	47	-	0	19	90
Operation	11	61	1	6	1	6	3	17	2	11	18	89
Regulatory	5	38	-	0	3	23	-	0	5	38	13	62
Reputation	10	71	-	0	2	14	1	7	1	7	14	67

Source: this table was derived from Appendix V.

4.11 IMPORTANCE ATTACHED TO RISK MANAGEMENT APPROACHES

To find out which risk management practices/approaches internal auditors in the banking industry placed a lot of premium on , the researcher asked them to rank some of the risk management approaches identified in the literature review in a scale of 1-5(not important at all -1, somewhat important -2, important -3, very important -4 and extremely important -5).

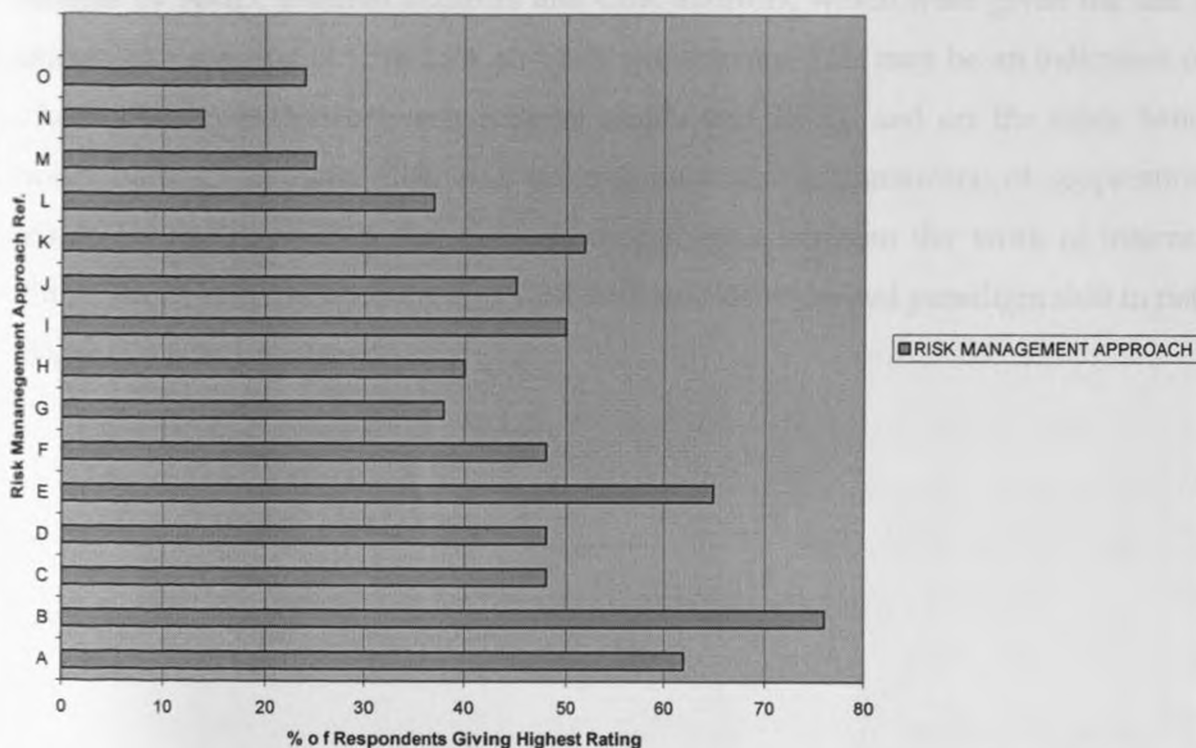
The results of the finding were as analyzed in Table 7.0 and Chart 2.0 below, which shows the percentage of the respondents who gave that particular risk management approach the highest rank of "extremely important ."

TABLE 7.0 IMPORTANCE ATTACHED TO RISK MANAGEMENT APPROACHES.

Ref No	Risk Management Approach	Frequency	Total Response	% For Extremely Important	rank
a	Integration of risk management in the strategic planning process.	13	21	62%	3
b	Appropriate policies to govern all the risk areas	16	21	76%	1
c	The awareness of the staff of the various risks facing the bank.	10	21	48%	6
d	Professional competence of the staff manning the various risk areas.	10	21	48%	6
e	Impact of the risk to the banks image.	13	20	65%	2
f	Management information system which support risk management.	10	21	48%	6

Ref No	Risk Management Approach	Frequency	Total Response	% For Extremely Important	rank
g	Management reports which support risk management.	8	21	38%	11
h	The various risks should be identified by SWOT analysis of the banks at the strategy formulation stage.	8	20	40%	10
i	The banks should have established clear lines of authority	10	20	50%	5
j	Established limits to the various exposures	9	20	45%	9
l	Stop loss provisions should be set up for all risk categories	7	19	37%	12
m	Risk management department review comments on the particular risk	5	20	25%	13
n	External auditors review comments on the particular risk	3	21	14%	15
o	CBK auditors review comments on the particular risk	5	21	24%	14

Source: this table was developed from Appendix VII



Source: the graph is obtained from table 7.0

From Table 10.0 and Chart 2.0 it emerged that, the risk management approach viewed to be the most relevant was, "b," having appropriate policies to govern all the risk areas which scored 76%. This was followed by "e", consideration of the impact of the risk to the banks image-65% and "a", integration of risk management in the strategic planning process which scored 62%.These results were understandable because without appropriate policies then no adequate risk management practices can be said to be in place. Integration of risk management in strategic planning process is the starting point of crafting any sensible bank wide risk management Process. On the assessment of the impact of the risk to the banks image, its important to realize that banks depend on their image, and any erosion of its image may lead to a bank run which may jeopardize all other risk management plans in place.

It's also worthwhile to note that, internal auditors rate most unfavorable, review comments by RMD, external auditors and CBK auditors, which were given the last 3 positions with a rating of 13%, 15% and 14% respectively. This may be an indication of the Lack of cooperation between internal audits and RMD, and on the other hand between internal auditors, CBK and external auditors. A framework of cooperation needs to be established, so that there is coordination between the work of internal auditors, RMD, external auditors and CBK auditors, if the desired paradigm shift in risk management is to be achieved.

5.0 CONCLUSIONS, LIMITATIONS AND RECOMMENDATION

5.1 CONCLUSIONS

The main objective of the study was to assess internal auditors' perception of their distinct role in the risk management process as opposed to the role being played by risk management department in the banking industry in Kenya. From the analysis of responses got, it was clear that while all internal auditors were aware that they had a role to play in the bank wide risk management process, only a small percentage (14%) could clearly articulate their distinct roles. On further probe, it emerged that this state of affairs had led to a conflict of roles between internal audit and risk management departments. This was admitted by 29% of the respondents, whose organizations had established both departments.

When the respondents were asked to rank all the nine risk categories listed by CBK (2005), it emerged that, credit risk was rated to be the most critical followed by operational risk, liquidity risk, strategic risk, foreign currency risk, regulatory risk, strategic risk, interest risk, reputation risk and price risk in that order. On frequency in which internal auditors assessed or reviewed these risks, no broad consensus or pattern emerged, an indication that risk management practices by internal auditors was as varied as the number of internal auditors in the banking industry in Kenya.

The same scenario of lack of a broad consensus, or distinct pattern was also witnessed when the respondents where asked to name risk measurement tools most preferred to them, while assessing the risk categories mentioned above. Infact, one internal auditor (5%), choose to skip this part of the questionnaire, an indication that he was either not familiar with the tools, or those tools were never used in his banks risk management practices.

5.2 RECOMMENDATION FROM THE STUDY

As Central Bank gears up to implement the recommendations of Bassel II and Risk Based Supervision it adopted in 2004, it needs to bring along with it, all financial institutions under its supervision. While this has been attempted by the publishing of Risk Management Guidelines of 2005, a lot needs to be done to ensure that financial institutions clearly understand and implement these requirements for their added value purposes, and not just for regulatory compliance. The results of the study clearly vindicated any assertions that this had been done. As internal auditors sit at the top of the corporation governance pyramid of most banks, their lack of clarity on the issue was very worrying.

CBK should therefore partner with the banking industry players, who include the Kenya Bankers Association (KBA), to provide for more workshops and seminars that will ensure that all stakeholders in the bank wide risk management strategy (including internal auditors), clearly understand their roles. The Risk Management Guidelines of 2005 should be refined further to include a clear exposition of the various stakeholders' roles, recommended risk management approaches, frequency of review and risk measurement tools for the banking industry.

5.3 LIMITATION OF THE STUDY

While the study was a survey of all the 44 banking institutions in Kenya licensed under the Banking Act (Cap 488), three institutions were disqualified as one was under statutory management, the second had not established an internal audit unit, while the internal auditor of the third institution (who had no assistants) had resigned and had not been replaced. The population of the study was further narrowed down by heads of internal audit departments who cited confidentiality of the banking institutions and therefore refused to respond. Other bureaucracies and roadblocks where mounted by some internal auditors, which led to over 2 months of E-mail and phone calls without any response. Some of the respondents who refused to comply were also among the

most established banking institutions with advanced corporate governance mechanisms and no doubt their response would have enriched the study.

Risk management being an emerging discipline has not been understood fully even by those who are supposed to implement its philosophy. This may have led to varied interpretations of the concepts presented to internal auditors to rate and assess in the questionnaire, and may have affected the responses obtained.

5.4 RECOMMENDATIONS FOR FURTHER STUDIES

As the study focused on the internal auditors perceptions/approaches in the entire risk management strategy in the banking industry in Kenya, the finer details of how internal auditors approached each category of risk as listed by CBK (2005) may be ripe ground for any future study.

External auditors' and risk management departments perception and approach of the whole risk management strategy of the bank can also be studied. Finally, a study can be carried out to determine the effectiveness of CBK risk based supervision introduced in 2004.

REFERENCES

Alens, Alvin and James k. Loebbecke (1997): Auditing, New Jersey: Prentice Hall

Alwin Kuruc (2000): "Implementation of Value at Risk System" in the Professional Handbook of Financial Risk Management. Oxford, Butterworth-Heinemann.

American Accounting Association (2006): Accounting Guidelines. (http:// accounting.rutgers.edu/raw/aaa/links/accsites.htm)

Central Bank of Kenya (2006): Central Bank of Kenya Prudential Guideline for Instutions licensed under the Banking Act, Nairobi: Central Bank of Kenya.

Central Bank of Kenya (2004): Risk Management on Kenya's Bank Sector. (**Http://www.centralbank.go.ke**).

Basel (1999): Supervisory Lessons to be drawn from the Asian Crisis, Basel Working paper 2-June 1999 (http://www.bis.org).

Basel (2000): Supervisory Risk Assessment and Early Warning systems, Working paper No.4 December 2000. (htp//www.bis.org)

Basel (2004): Bank Failures in Mature Economies, working paper No. 13 (http//www.bisorg)

Basel (2006): International Convergence of Capital Measurement and Capital Standards. A Revised Basel II Framework. (**http://www.bis.org**)

Benston, George J. (2002): What's Special About Banks? The Financial Review. Vol.34.

Best, Phillip (2000): "Stress Testing" In the Professional Handbook of Financial Risk Management. Oxford: Butterworth Heinemann.

Blokdijk, J. H. (2004): Tests of Control in the Audit Risk Model: Effective? Efficient? The International Journal of Auditing. Vol. 8

Bodnar, George H. (1995), Accounting Information System. London: Prentice Hall

Braiotta, Louis (1999): The audit committee Handbook, New York: John Wiley & Sons Inc.

Brig House, David (2001): The Financial Services Environment. London: Financial World Publishing.

Central Bank of Kenya (2000): Commercial Banks Directory, (Http://www.centralbank.go.ke/Bankinfo/banks.sp)

Chhabra T. N. (2003): Banking Theory and Practice, New Delhi: Dhanpat Rai & Co.

Cooper, Donald R. and Pamela S. Schindler (2003): Business Research Methods, New Delhi: Tata McGraw-Hill.

Dale, Flesher et. al. (2005): Auditing In The United States,a Historical Perspective, Abacus. vol.41

Doherty. Neil A. (1985): Corporate Risk Management , A Financial Exposition, New York: McGraw Hill Publishing House.

Duncan, Wilson (2000), "**Operational Risk**" in the Handbook of Financial Risk Management. Oxford: Butterworth- Heinemann.

Earnest & Young (2006): Risk Management Online Survey; Key Findings and Insights, www.ey.com/risk/letstalk

Edward, Botts. Eds (1997): Credit Management Handbook, Vermont: Gower Publishing Company.

Fanelli, Jose Maria and Rohinton Medhora (2002): Finance and Competitiveness in Developing Countries, Ottawa: International Development Research Centre.

Fiedher, Edher R. and Maude R. Perch (1991): Measures 0f Credit Risk and Experience, New York: National Bureau of Economic Research.

Fukukawa, Hironori et.al (2006): Audit Programs and Audit Risk: A Study of Japanese Practice, International Journal of Auditing, Vol. 10.

Gardner, Mona J. and Dixie L. Mills (1988): Managing Financial Institutions; an Asset/Liability Approach .Chicago: The Dryden Press.

Gramling A. Audrey and Patricia M. Meyers (2006): Internal Auditing Role in ERM, Internal Auditor Journal , April,2006.

Greuning, Hennie Van and Sonja Brajovic Bratanovic (2003): Analyzing And Managing Banking Risk, Washington D.C: The World Bank..

Gupta, Kamal & Ashok K. Arora (1996): Fundamentals of Auditing, New Delhi: McGraw Hill Publishing Company Limited.

Harrison, Ian (2003: Complete A-Z Accounting Handbook. London: Hoddern & Stoughton

Hempel, George H. et. al (1994): Bank Management; Test & Cases, New York: John Wiley & Sons, Inc.

Hitchins J. et. al (1996): Banking, an Industry Accounting and Auditing guide, New York: ICAEW – Accountancy Book.

Hood, Christopher (2001): The Government of Risk, Understanding Risk Regulation Regimes. London: Oxford University Press.

Hyytinen, Ari & Tuomos Takalo (2004): Preventing Systematic Crises Through Bank Transparency,Economic Notes By Banca Monte Dei Paschi Disiena SPA. Vol. 33.

Idarus, Yusuf A. (2005): A Survey of Operational risk Management Practices by Commercial Banks in Kenya, Unpublished MBA thesis, University of Nairobi.

IFAC (1995), International Standards on Auditing and International auditing g Practice Statements, London: IFAC.

Institute of Internal Auditors (2005): Sarbanes-Oxley Section 404: A guide for Management by Internal controls, practitioners. http://www.theiia.org

Institute of Internal Auditors (2005): Enhancing Corporate Governance for Banking Organizations, IIA Response to Basel Committee Exposure on Corporate Governance in Banking Organizations. http://www.theiia.org

Institute of Internal of Internal Auditors (11A, 2006): **Organization Governance**: Guidance for Internal Auditors. http://www.theiia.org

International Accounting Standard Board (2004): International Financial Reporting Standards (IFRS), London: FASB.

International Monetary Fund (2000): Comments on Proposals of the Basel Committee on Banking Supervision for New Capital Framework (Http://www.imf.org).

Karimi F. Mugo (1998): The Scope of Independence of Internal Auditing in Publicity quoted Companies in Kenya, Unpublished MBA Thesis, and University of Nairobi.

Kathanje M. (2000): An Evaluation of Financial Performance of Kenyans Banking Sector for the Period 1987 to 1999, Unpublished MBA Project.

Kay, Neil M. (2000): Patterns in Corporate Evolution. London: Oxford University Press

Keitany J. J. /2000): The Internal Audit Control function and its Implications for Risk Assessment by External Auditors; A Case of Quoted Companies, Unpublished MBA Thesis, University of Nairobi.

Kilongosi, J. Mutai (2005): Net Bank Interests Margin and Interest Rate Risk among Commercial Banks in Kenya , Unpublished MBA Thesis, University of Nairobi.

Landor, Guy P. (2004): What is Sarbanes Oxley? New York: McGraw-Hill.

Linyiro, Bruno Mugambi (2006): A Survey of Corporate Governance Practices of Banks in Kenya, Unpublished MBA Thesis, University of Nairobi.

Lore, Marc and Lev Borodovsky (2000): The Professional Handbook of Financial Risk Management, Oxford: Butterworth Heinemann.

Marco, Allergrini & Giusseppe D'onza (2003), "Internal auditing And Risk Assessment In Large Italian Companies; An Empirical Survey." International Journal of Auditing, Vol. 7.

Messier, William F. (2003): Auditing & Assurance Services; A Systematic Approach. Boston: McGraw-Hill Publishing Co.

Mills, David (1993): Quality Auditing, London: Chapman & Hall

Muthungu V. Paul (2003): Evaluation of Financial Performance of Banks, A comparison Between Local and Foreign Banks, Unpublished MBA Thesis, University of Nairobi.

Nation (July 20, 2006): Not So Secure Bank Sate Deposits, Nairobi: Nation Media House (Pg. 8-9)

Nation (July 7, 2006): 1,000 Charterhouse Depositors Named, Nairobi: Nation Media House (Pg 1)

Njogu, Rahab Njoki (2004): A Survey Of Strategies Used To Facilitate Teamwork Among Employees In Commercial Banks In Nairobi, Unpublished MBA Thesis, University of Nairobi.

O'Sullivan, Mary (2001): Contests for Corporate Control. London: Oxford University Press

Obiero, Dan (2002): The Banking Sector Regulatory Framework in Kenya. Its Adequacy In Reducing Bank Failures. Unpublished MBA Thesis, University of Nairobi.

OECD (2002): "Experience with Resolution of Weak Financial institutions in the OECD area" Chapter IV of financial Market Trends, No 82, June.

OECD (2004): Principles of Corporate Governance, http://www.oecd.org

Omotunde E. GH, Johnson (2002): Financial Risk, Stability and Globalization, Washington D. C.: International Monetary Fund

Pathak, J. P. (1999): Auditing in a Computerized Environment, Ahmdabad: Allied Publishers

Power, Michael (1997): The Audit Society, London: Oxford University Press.

Pratt, Michael J. (1983): Auditing, London: Longman Homewood: Richard D. Irwin.

Reddy, Y.R.K and Yerram Rajo (2000): Corporate Governance in Banking and Finance, New Delhi: Tata McGraw Hill Publishing Company Limited.

Ritter, Lawrence S. et al (1997): Principles of Money, Banking and Financial Markets, Massachusetts: Addison Wesley.

Robertson, Jack C. & Timothy J. Lowers (1998): Auditing, Boston: Irwin McGraw Hill.

Sabih, Mohammed (1983): Evaluation of Internal Controls; Ethiopian Airlines, Unpublished MBA Thesis, University of Nairobi

Selim, Georges And David McNamee (1999): The Risk Management and Internal Auditing Relationship; Developing and Validating a Model. International Journal of Auditing. Vol. 3.

Sinkey, Joseph F. (1992): Commercial Bank Financial Management, New York: Macmillan Publishing Company.

Skora Richard k. (2000): "Credit Risk Management" in the Professional Handbook of Financial Risk Management, Oxford: Butterworth Heinemann

Sririam, M. Revathy (2000): System's Audit, New Delhi: Tata McGraw Hill Publishing Company Limited.

Taylor, Donald H. and G. William Glezen (1985), Auditing: Integrated Concepts and Procedures. New York: John Wiley & Sons.

Teri L. Goske (2000), "Additional Risks in Fixed Income Markets" in the Professional Handbook of Financial Risk Management, Oxford: Butterworth Heinemann.

Thomas, C. William and Emerson O. Henke (1986): Auditing, Theory and Practice, Boston: Kent Publishing Company

Ting, Wenlee (1988): Multinational risk Assessment and Management, New York: Quorum Books.

Topping, Simon (2005): Improving Management of Risk through Implementations of Basel II, Paper Presented at the financial Markets Association. Basel II Seminar, Hong Kong.

Venkat, Shyam (2000): "Implementing a firm wide Risk Management Framework" in the Handbook of Financial Risk Management, Oxford: Butterworth Heinemann

Vinten, Gerald and S. Torthey (1991): Modern Internal Auditing, London: Paul Chapman Publishing Ltd.

APPENDIX I: INTRODUCTION LETTER

Charles Wanyoike Kibara

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TO WHOM IT MAY CONCERN

I am a postgraduate student in the School of Business, University of Nairobi pursuing a Master's of Business Administration Degree program. I am undertaking a research on Internal Auditing Risk Management practices in banks in Kenya. The research is aimed at establishing the distinct role of the banks internal auditors and that of risk management department in the bank wide risk management strategy.

You have been selected as one of the respondent. I therefore kindly request you to fill the attached questionnaire; the information from the questionnaire is needed purely for academic research purpose and will therefore be treated with utmost confidentiality. In no way will your name or the name of your bank appear in the final report. A copy of the final report can be made available to you upon request.

If you require any further information please do not hesitate to contact me on the above mentioned contacts, or further still, University of Nairobi, School of Business P.O Box 30197 Nairobi.

Thank you in advance for your cooperation.

Yours Faithfully,

Charles W. Kibara

MBA STUDENT

APPENDIX II: LIST OF BANKS IN KENYA

1. African Banking Corporation
2. Bank of Africa ltd
3. Bank of Baroda
4. Bank of India
5. Barclays Bank of Kenya Ltd
6. Cfc Bank Ltd
7. Charterhouse Bank Ltd
8. Chase Bank (K) Ltd
9. Citibank N, A.
10. City Finance Bank Ltd
11. Co-Operative Bank of Kenya Ltd
12. Commercial Bank of Africa Ltd
13. Consolidated Bank of Kenya
14. Credit Bank Ltd
15. Development Bank of Kenya Ltd
16. Diamond Trust Bank (K) Ltd
17. Dubai Bank Kenya Ltd
18. EABS Bank
19. Equatorial Commercial Bank Ltd
20. Family Finance Building Society
21. Fidelity Commercial Bank Ltd
22. Fina Bank Ltd
23. First American Bank Of Kenya Ltd
24. Giro Commercial Bank Ltd
25. Guardian Bank
26. Habib Bank A.G Zurich
27. Habib Bank.
28. Housing Finance Company Of Kenya

29. Imperial Bank
30. Investments & Mortgages Bank Ltd
31. Industrial Development Bank
32. K-Rep Bank Ltd
33. Kenya Commercial Bank Ltd
34. Middle East Bank (K) Ltd
35. National Bank of Kenya Ltd
36. National Industrial Credit Bank Ltd
37. Oriental Commercial Bank Ltd
38. Paramount Universal Bank Ltd
39. Prime Bank Ltd
40. Southern Credit Banking Corp. Ltd
41. Stanbic Bank Kenya Ltd
42. Standard Chartered Bank (K) Ltd
43. Trans-National Bank Ltd
44. Victoria Commercial Bank Ltd

APPENDIX III: QUESTIONNAIRE:

Internal auditing assessment of risk management practices in banks in Kenya

SECTION I: DEMOGRAPHIC FACTORS

1. What is your title or position in the bank? ______________________

2. Are you Male [ ] Female [ ] Please tick (√) the appropriate box.

3. How old are you? Please tick as (√) the appropriate box.

   Below 40yrs [ ]

   Over 40yrs [ ]

4. When was your bank established? ___________________

5. How many branches does your bank have? _______________

6. How many employees work for your bank? (Total in all departments)___________

7. When was internal audit department established in your bank? ____________

8. How many members of staff are in your internal audit department?__________

9. What qualification do employees in your department hold?

A) Accounting Professional Qualification *Number in Department*

Full accounting qualification ________________

No Accounting qualification ________________

Total ----------------

B) Banking Qualification *Number in Department*

Banking qualification -------------------

No banking qualification ------------------

Total

10. Please specify the number of years of audit experience of the staff in your department.

No. of years *No. of staff*

0-5 ------------

Above 5 years ------------

11. Kindly tick appropriately (√) the products/services offered in your bank.

A. Loans and advances [ ]

B. Acceptance of customer deposits [ ]

C. Treasury products [ ]

D. Trade finance products [ ]

E. Safe custody lockers [ ]

F. Mobile banking [ ]

G. ATM services. [ ]

H. Internet banking [ ]

I. SMS banking [ ]

J. Credit / debit card [ ]

K. Others offered (please specify)

i________________________

ii________________________

SECTION II. RISK MANAGEMENT ROLES

1. Has your bank established a risk management department? Yes [ ] No[ ]
   If yes, how old is the department (in years and months)? ____________________

2. In your opinion what are the three most important roles of risk management department?
   i. ____
   ii. ____
   iii. ____

3. In your opinion what are your roles as the internal auditor in risk management in the bank? (please mention three most critical roles)
   i. ____
   ii. ____
   iii. ____

4. In carrying out your roles have you experienced any conflict with the risk management department? Yes [ ][No [ ]

5. If yes, what was the conflict about? --

   ----

6. Have you adopted risk based audit? Yes [ ] No [ ]

7. Do you apply risk based methodology in the following;
   a) in annual audit planning, yes [ ] no [ ]
   b) in the individual audit engagement. yes [ ] no [ ]

8. What was the basis of your risk based audit strategy?
   Quantitative parameters [ ] qualitative parameter [ ] both [ ]

SECTION III. RISK MANAGEMENT ASSESMENT APROACHES

1. Kindly rank the following types of risks facing banking institutions that have been identified by CBK starting with most critical to the least critical (give the most critical number one and the least critical number nine).

Risk category	Rank
a) Strategic risk	--------------
b) Credit risk	--------------
c) Liquidity risk	--------------
d) Interest rate risk	--------------
e) Foreign exchange risk	--------------
f) Price risk	--------------
g) Operational risk	--------------
h) Regulatory risk	--------------
i) Reputation risk	--------------

2. Kindly indicate the frequency with which you evaluate the following risk categories in your bank by ticking (√) appropriately in the box.

	Risk category	Daily	Weekly	Monthly	Quarterly	Half yearly	Yearly
a)	Strategic risk						
b)	Credit risk						
c)	Liquidity risk						
d)	Price risk						
e)	Interest rate risk						
f)	Currency risk						
g)	Operational risk						
h)	Regulatory risk						
i)	Reputational risk						
j)	Other risks (please specify) a) b)						

3. For the following please tick (√) in the box appropriately the extent to which you are / would like to be involved in the banks overall risk management practices.

	Risk management objective	No responsibility	Limited responsibility	Moderate responsibility	Substantial responsibility	Total
a)	Giving assurance in risk management process					
b)	Giving assurance that risks are evaluated correctly					
c)	Evaluating the reporting of key risks					
d)	Reviewing the management of key risks					
e)	Facilitating identification of key risks					
f)	Championing establishment of risk management process.					
g)	Developing risk management strategy for board approval					
h)	Setting the risk appetite in different functional areas					
i)	Improving risk management processes					
j)	Making decisions on risk responses					
k)	Implementing risk responses on management behalf.					
l)	Having accountability for risk management					

4. Kindly rate by ticking (√) appropriately the importance you attach to the following practices in your assessment of various risk categories as outlined by CBK (2005).

	Risk Management Approach	Not Important	Somewhat Important	Important	Very Important	Extremely Important
a)	Integration of risk management in the strategic planning process.					
b)	Appropriate policies to govern all the risk areas					
c)	The awareness of the staff of the various risks facing the bank.					
d)	Professional competence of the staff manning the various risk areas.					
e)	Impact of the risk to the banks image.					
f)	Management information system which support risk management.					
g)	Management reports which support risk management.					
h)	The various risks should be identified by SWOT analysis of the banks at the strategy formulation stage.					
i)	The banks should have established clear lines of authority					
j)	Established limits to the various exposures					
k)	Provision for business continuity planning in case of risk crystallization.					
l)	Stop loss provisions should be set up for all risk categories					
m	Risk management department review comments on the particular risk					
n)	External auditors review comments on the particular risk					
o)	CBK auditors review comments the risk					

5. According to you, which is the most important risk measurement tool for the following risk categories? Indicate by ticking (√) appropriately in the box for the most important.

	Risk category	Contingency planning	back testing	Value at risk	Stress testing	Gap analysis	Others (specify)
a)	Strategic risk						
b)	Credit risk						
c)	Liquidity risk						
d)	Price risk						
e)	Interest rate risk						
f)	Currency risk						
g)	Operational risk						
h)	Regulatory risk						
i)	Reputation risk						
j)	Other risks (please specify) 1) 2)						

Thank you for your cooperation.

APPENDIX IV: FREQUENCY OF REVIEW

Bank code	Strategic	Credit	liquidity	price	interest	currency	Operational	regulatory	Reputation
BK001	Q	M	D	Y	M	Y	M	M	H
BK002	Y	Q	D	M	W	D	M	-	Q
BK003	M	Q	D	-	-	-	M	-	-
BK004	Y	Q	H	H	H	H	Q	Q	Y
BK005	M	W	D	M	W	D	D	D	D
BK006	Y	Q	M	Q	Q	W	H	Y	Y
BK007	Q	D	W	Q	M	D	D	Q	Q
BK008	Y	Y	Y	Y	Q	M	Q	Q	Y
BK009	Y	H	M	-	Q	H	Q	Q	Q
BK010	Q	M	D	-	D	-	M	H	H
BK011	Q	M	D	H	M	D	M	D	D
BK012	Y	Q	D	Y	H	D	Q	Q	Y
BK013	H	Q	M	-	Q	M	Q	-	-
BK014	M	D	D	D	W	D	D	W	D
BK015	Y	Q	M	Q	W	Q	W	M	Y
BK016	H	Y	Q	Q	Q	Q	M	M	Q
BK017	Q	D	D	M	M	D	D	M	D
BK018	D	D	D	D	D	D	D	D	D
BK019	H	D	M	Q	M	D	D	M	D
BK020	M	Q	Q	Q	M	Q	D	M	D
BK021	Q	D	D	W	W	W	D	D	M

KEY; D-daily, W-weekly, M-monthly, Q-quarterly, H- half yearly, Y- yearly

The table indicates the frequency within which internal auditors of the various banks carry out risk assessment/ review of the various risk categories. ***Source: research data***

APPENDIX V: RISK MANAGEMENT TOOLS

Bank code.	Strategic	Credit	liquidity	price	Interest	currency	Operational	regulatory	Reputation
BK001	CP	VR	CP	CP	VR	VR	CP	CP	CP
BK002	GA	VR	ST	ST	ST	ST	CP	VR	VR
BK003	GA	VR	CP	-	ST	-	CP	-	-
BK004	ST	VR	ST	ST	ST	ST	BT	-	CP
BK005	GA	ST	ST	VR	VR	VR	ST	GA	CP
BK006	CP	ST	GA	ST	GA	VR	CP	-	-
BK007	-	-	GA	-	ST	ST	CP	-	-
BK008	CP	VR	ST	GA	VR	ST	ST	VR	VR
BK009	CP	ST	GA	VR	GA	VR	VR	VR	ST
BK010	GA	VR	CP	ST	ST	ST	GA	GA	CP
BK011	GA	CP	GA	VR	ST	CP	ST	-	-
BK012	-	BT	BT	BT	BT	ST	CP	GA	CP
BK013	ST	ST	GA	-	-	VR	-	-	-
BK014	CP	VR	-	ST	ST	VR	-	CP	CP
BK015	CP	VR	ST	VR	ST	ST	CP	CP	CP
BK016	BT	VR	GA	ST	ST	ST	CP	CP	CP
BK017	-	-	-	-	-	-	-	-	-
BK018	CP	CP	CP	CP	CP	CP	CP	CP	CP
BK019	CP	VR	CP	CP	ST	ST	CP	-	-
BK020	GA	VR	ST	VR	GA	BT	CP	GA	CP
BK021	ST	ST	ST	VR	VR	BT	GA	GA	GA

Key; *CP- Contingency planning, BT- Back testing, VR-Value at risk, ST-Stress testing, GA-Gap analysis.* ***Source:*** *research data*

APPENDIX VI: RISK MANAGEMENT ROLES

Ref	Risk Management Approach.	No. responsibility	Limited responsibility	Moderate responsibility	Substantial responsibility	Total responsibility	
a	Giving assurance in risk management process	0	3	4	7	7	21
b	Giving assurance that risks are evaluated correctly	0	1	3	8	8	20
20c	Evaluating the reporting of key risks	0	4	4	9	4	21
d	Reviewing the management of key risks	0	2	4	8	7	21
e	Facilitating identification of key risks	1	0	3 .	13	4	21
f	Championing establishment of risk management process	1	4	3	9	4	21
g	Developing risk management strategy for board approval	3	8	4	3	3	21
h	Setting the risk appetite in different functional areas	6	6	6	2	1	21
i	Improving risk management process	1	2	4	9	5	21
j	Making decisions on risk responses	8	6	3	0	3	18
k	Implementing risk responses.	11	4	2	1	3	21
l	Having accountability for risk management	9	7	4	0	1	21

Key: *The table shows how respondents ranked the particular role into their actual and perceived level of involvement..*

APPENDIX VII: IMPORTANCE ATTACHED TO RISK MANAGEMENT PRACTICES

Ref.	Risk management approach	Not important at all	Somewhat important	Important	Very important	Extremely important	Total
a	Integration of risk management in the strategic planning process	0	0	1	7	13	21
b	Appropriate policies govern all the risk areas.	0	0	0	5	16	21
c	The awareness of staff of the various risks facing the bank.	0	0	2	9	10	21
d	Professional competence of the staff manning the various risk areas	0	0	1	10	10	21
e	Impact of the risk to the bank image	0	0	2	5	13	20
f	Management information system which support risk management	0	0	2	9	10	21
g	Management report which support risk management.	0	0	2	11	8	21
h	The various risks should be identified by swot analysis of the bank at the strategy formulation strategy.	0	0	3	9	8	20
i	The banks should have established clear lines of authority	0	0	2	8	10	20
j	Established limits to the various exposures.	0	0	1	10	9	20
k	Provision for business * planning in case of risk crystallization	0	0	1	10	9	20
l	Stop loss provisions should be set up for all risk categories	0	0	6	6	7	19
m	Risk management department review comments on the particular risk	0	0	4	11	5	20
n	External auditors review comments on the particular risk.	1	1	8	8	3	21
o	CBK auditors review comments on the particular risk	1	2	4	9	5	21

Key: the table shows the number of participants who ranked the particular risk management practice as such. Source: ***research data.***